The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

. 1387.—Vol. XXXII. LONDON, SATURDAY, MARCH 22, 1862. (WITH SUPPLEMENT) {STAMPED.....SIXPENCE. UNSTAMPED..FIVEPENCE.

Original Correspondence.

THE NEW HARTLEY CATASTROPHE.

SIR,—Inasmuch as your correspondent, "A Pitman," has not advanced anything of his own to disprove my statements of the cost of sinking additional shafts, he ought, in common justice, to deal fairly with those he is indebted to for his arguments, if such they may be termed. Why draw a comparison between a shaft 12 ft. diameter and one of 11 ft.? seeing that the area of one is 95 ft. in round numbers, and the other 113 ft., and that, consequently, the quantity of rock, &c., to be sent out of the shafts would bear the proportion to each other as does the area, and that in walling the shaft one would require 34 ft. 6⅞ in. for the inner circle, and the other 37 ft. 8⅝ in., the comparison is unfair, if it is considered that the one is cased with bricks and the other with dressed stone. Why do "M. E." the injustice to falsify his figures to support an untenable position? Does "M. E." not state the cost of sinking a 12-feet shaft 100 fathoms to be 2573*l.* 15s., or 25*l.* 14s. 9d. per fathom? If 200*l.* be deducted for the cost of guide-rods (which was clearly stated not to be included in my estimate), and 75*l.* the cost of temporarily timbering a shaft, an expense that I am at present unacquainted with, and a portion of the value of a Jack machine, which is stated by "M. E." to be of service for permanent purposes, it will somewhat alter the figures of your correspondent. It would also have served to show that "A Pitman" was desirous of honestly bringing the matter before the public if he had placed Mr. Shepherd's estimate of the cost of sinking shafts side by side with those given, seeing that he estimates a 9-ft. shaft at 5*l.* per yard. "A Pitman" asks "how I make it out that 300 men were employed?" In reply, I will give a quotation from your able correspondent, "M. E." "So that in all probability the air-passage in the pumping section of the shaft was much less than 50 square feet, and at the standing set of buntons, situated in the single part of the shaft, probably less than 40 square feet. This 50 square feet, being the only air channel for a considerable distance for an extensive colliery, of 100 fms. in depth, and in which were employed nearly 300 persons daily, such an area is manifestly, with a bratticed pit, inadequate to supply an efficient, safe, and healthy ventilation." Surely "A Pitman" will not object to me using the same authority as he has mainly based the issue of the question upon; if he assents, I hold that every position that has been taken up by me has been rather supported than otherwise. If he objects to accept "M. E." as an authority upon the whole of the question, or if it is necessary to misquote him before he becomes an authority, the case is somewhat altered, but not the inconsistency of "A Pitman." "Why confine us to a velocity of 900 ft. per minute," simply because it exceeds the maximum velocity that can be passed through a mine worked under the same circumstances as New Hartley? And I challenge "A Pitman" to show a parallel case where that velocity is attained when the operation of winding coal is going on.

It is somewhat amusing to see a correspondent writing under the signature of "A Pitman," and at the same time to exhibit such apparent ignorance of mining matters as to omit taking into consideration the space occupied by the bearers, or horse-trees, that keep the pump-stocks in their proper position, also the space occupied by the clack-pieces, bucket-pieces (if they be drawn lifts), and ram-chamber and H-piece (if force lifts), with the bearer that the top lift of pumps rests upon, to say nothing of the stays for keeping the pump-rods in their position, and the rubbing-boards and pipes for conveying the water that permeates through the strata down the shaft.

I fear taking up too much space, or I should have analysed the whole of the figures made use of by "A Pitman" in calculating the area of each section of the shaft. The statement of the cost of sinking the shaft referred to in the Journal of Feb. 22 can be verified; and if "A Pitman" can at any time make it convenient to call at Hyde and Haughton Collieries, I shall have pleasure in showing him other things quite as famous as the shafts, if judiciously spending money renders anything worthy of that appellation. The only additional remark I shall at present make upon this part of the subject is that I gave the exact cost per yard of sinking the shaft referred to, and the circumstances under which it was sunk were sufficiently detailed at the time the cost was given.

"If I did not suggest the insurance scheme, who did?" To this I am unable to give a definite answer, but I fully referred to the subject in a lecture delivered more than four years ago, to an audience of above 300 persons; and at that time I was unable to claim originality of suggestion. The charges made by me against a section of colliery proprietors and managers was never meant to hurt anyone, but simply to give the public an idea of the cause of such so-called accidents, that have latterly so deeply tarnished the reputation of the northern viewers.

If "A Pitman" would throw off his mask, and stand forward as an Englishman, it would, perhaps, be easy to determine whether he is an advocate for continuing to work collieries upon the miserable system that has called forth these remarks or not; in the meantime, it becomes necessary to call anyone a supporter of the system who can speak of great hardships being inflicted in many cases by it being rendered imperative to sink duplicate shafts, and yet ignore the hardships inflicted upon those who have fallen victims to the system. And "to show up the 'tall talk' of Mr. Goodwin, and the likes of him," is the purport of the last two or three communications. "I submit I have done so, and shall yet do it further." In reply to these beautiful expressions, permit me to say that I am willing to submit to the judgment of the public, and that all I am afraid of in this case is occupying too much space in the Journal. I can scarcely think the writer of any production the proper person to estimate its worth. Were I asked what "A Pitman" had done, I should candidly and honestly aver that he had betrayed both great want of knowledge upon mining matters, and bad taste in putting his questions, even were he writing for the purpose of eliciting information; and that, under such circumstances, he had acted wisely in refusing his name, in order to avoid disgrace.—*Hyde and Houghton Collieries, March* 17. J. GOODWIN.

THE GETHIN COLLIERY CATASTROPHE.

SIR,—As announced in the Journal of last week, the jury assembled to judge the cause of the recent explosion at Gethin Colliery, Merthyr Tydvil, have returned a verdict of "Manslaughter" against Mr. Moody, the chief viewer. They found that the ventilation was deficient in quantity, badly arranged, and liable to frequent interruption. The viewer, also, disregarded the first general rule, which is to the effect that complete and efficient ventilation should exist, and also several minor rules.

As the verdict is now delivered and recorded, it is fair to enquire whether it was a just one, according to the evidence produced. Ventilation is the grand point which first requires attention, and this is the great mainstay of good colliery management. Whether a colliery be bituminous or steam, Risca, Aberdare, or Merthyr seams, ventilation, complete and efficient, is required in all. A pit or level may be badly laid out at the commencement, the subsequent arrangements might not show much scientific or practical knowledge, yet if there be adequate ventilation the safety of the men and mine is to a great extent established, and all will generally go on well. Where water and other unforeseen causes abound this will be an exception to the premises laid down. Then comes the question, was the ventilation adequate to the Gethin Colliery? The *Times*, in an able article on Colliery Accidents, states "That the best proof of efficient management in a mine was that which presented the fewest fatal accidents." There are exceptions to this rule; but if it is applicable anywhere, it must be in the case of mines of a fiery nature; and such is, unquestionably, the Gethin Colliery. But it is a strange and telling fact, that although the jury found the ventilation was inadequate, yet only *one man* has lost his life during the last ten years from an explosion of gas at the whole of the Cyfarthfa collieries. Certainly, the evidence showed that the ventilation was deficient in many respects; but is there a colliery in South Wales without its imperfections in reference to ventilation? A perfect system is impossible; but every known means ought to be employed to make it efficient. No doubt the theoretical calculations of Mr. Brough and Mr. Evans, the Government Inspectors, and Mr. Blackwell, might not have been realised, and they never will be, because practice and theory are very different things. Theory says that a certain quantity of air, at a certain velocity, will pass through a certain sectional area; yet practice very often proves that more or less might go, according to the circumstances of the occasion. The atmospheric pressure, as Mr. Brough truly states, has much, very much, to do with the quantity of gas that exudes in a fiery colliery, and it was a great fault of Mr. Moody that he had not a barometer at the bottom of the shaft; but it can never be held to amount to criminal negligence. At Risca there was a barometer, and safety-lamps were exclusively used, and with all these precautions 142 lives were lost. Risca had only one split for one of the most extensive collieries in South Wales, while Gethin had several splits. If the air was in one continuous current, like at Risca, no doubt but a greater loss of life would have occurred. At Risca about one-third of the men in the pit escaped, while at Gethin three-fourths were able to make their way out in safety. Upon this comparison Gethin has by far the advantage.

Then, as to the use of naked lights. It was clearly proved that naked lights were used in almost every part of the colliery ever since its opening, and no accident of any importance had occurred from the practice. Government Inspectors of Mines, and many eminent mining engineers, disapprove of the use of naked lights at all in fiery mines, but those that are engaged in the practical working of collieries say that when gas accumulates naked lights are far safer than safety-lamps. This is explained by the fact that where gas exists, even in the smallest quantity, it will immediately fire by coming in contact with a naked light, whereas if safety-lamps are used it may lurk about in holes and openings, it will gradually accumulate, and an explosion will take place, causing a fearful less of human life. It was not shown at the inquest that the Government Inspector interdicted the use of naked lights, or suggested that safety-lamps should be used. It can hardly, then, be said that a person, whether he be a colliery viewer or any other responsible party, is guilty of criminal negligence for permitting a practice to be continued which has been used, and which has proved faultless, for a great many years. The verdict will, perhaps, be a caution to managers of coal works, but as to the ultimate issue there cannot be a reasonable doubt that if the grand jury at the Assize will not ignore the bill the common jury will, without doubt, acquit Mr. Moody of any negligence which would bring him within the provisions of our criminal law. E. H.

ON WROUGHT-IRON GIRDERS.

SIR,—At the meeting of the Liverpool Polytechnic Society, on Monday evening last, a valuable paper "On Wrought-iron Girders," by Mr. Birckel, civil engineer, of this town, was read, in which he recommended the application of the same principle to the construction of the main beams of the large pumping-engines employed in the drainage of mines, at the same time referring to the late disaster at the New Hartley Coal Pit as a proof of the unfitness of cast-iron beams for that purpose. The author exhibited diagrams of various kinds of girders constructed in England and on the Continent, and preferred the solid plate girder, as universally adopted by the English engineers, to the lattice girders employed in France and Germany, and recommended that both the upper and lower flanges should be of the same sectional area, as the ratio between tensional and compressional resistance to rupture in wrought-iron is nearly one of equality, being 6 to 5. A section and plan of a beam on this principle at Chester-le-Street was exhibited. This beam was constructed by Mr. Fairbairn, of Manchester, and is calculated to bear a strain of about 450 tons, and it was stated that a beam, of which the greatest breadth was 8 ft. 6 in., would be calculated to bear a strain of 1400 tons, and would be equal to the requirements of such an engine as that at the New Hartley Pit. In estimating the difference between the cost of such a beam and one of cast-iron, the author stated that the cost of the wrought beam would be about 400*l.*, and that of the cast one about 340*l.*, giving an increase of about 20*l.* per cent. on the original outlay, which he considered a mere trifle when compared with the increased security. The tendency of wrought-iron to assume a crystalline structure was advanced as an objection to its proposed application, but the author preferred it, with all its faults. Believing the subject to be worthy the attention of mining engineers, I beg a small portion of your valuable space for the above. WILLIAM RICKARD.

4, *Myrtle-street, Liverpool, March* 19.

PROPOSED MINERS' RELIEF FUND.

SIR,—I am glad to see that Mr. Pease, of Darlington, has put forward a practical suggestion for setting on foot a Miners' Relief Fund. I should like to make some observations on his letter, and give some statistics which may be useful to others, as the great difficulty at present appears to be the want of proper data to found a scheme upon. For instance, Mr. Pease calculates that for every hewer two other hands are employed, but at a colliery in our neighbourhood there are 6½ for every hewer; the calculations, therefore, as to the number of colliers founded on this supposition cannot be relied upon, I would, therefore, suggest that managers of colliers be invited to furnish you with statistics such as I subjoin, so that those who are endeavouring to devise some practical scheme may have some data to rely upon. They need not reveal their employers' secrets, but make calculations, as I have done, which will answer the purpose better.

STATISTICS PROPOSED.—According to my calculations 1019 colliers would leave behind them—

518 widows.
29 parents = 547.
1206 orphans dependent upon them.
508 orphans earning their own livelihood = 1714.

One life has been lost on an average for every 125,000 tons of coal raised, about 5 tons is got a day by each hewer. Our pits worked 269 days last year: 2d. per week paid by all earning 2s. 6d. per day and upwards would be equal to 3s. 0½d. per 100 tons of coal raised.

I will now make some remarks on Mr. Pease's letter, following his own for convenience of reference. I do not see the necessity for debarring the *disabled for life* from the fund; I would suggest that their allowance should commence from the time they cease to be relieved by their sick club, six months at any rate from the time of the accident. I should require a certificate from a medical man (to be renewed year by year) that they are unable to work; and as all payments to them, as well as to widows and orphans, should be made weekly, or monthly at furthest, they could be stopped at any time the man was able to resume his work. From the improvidence of the men if left to themselves, and their habits of going from one colliery to another, with the difficulty of tracing or identifying them, I think the Miners' Relief Fund committee should deal only with the *masters*, who should be left to settle with their own men. The masters should pay a given sum (to be fixed annually on the basis of the previous year), say 3s. for every 100 tons of coal raised by them; and they should receive a given sum, say 5s. per week for every widow and 2s. per week for every child, until they were able to earn their own livelihood; 10 or 12 might be fixed as the age for boys, and 14 or 16 for girls. This sum should be paid to the widows and orphans of any man who meets with a fatal accident while working for them, whether he has been working for them one day or all his lifetime, every man permanently disabled should have 10s. per week for himself and family. The masters might arrange with their men to deduct their payments from their wages; in some pits 2d. per man would suffice, being equal to 3s. per 100 tons, and if there were any trifling deficiency the masters would not object to bear the loss.

In order to save the expense of agents all over the country, the masters might advance the money for paying the widows and orphans, and get repaid quarterly from the fund, a committee of men being appointed, with a secretary, to whom duplicate forms, filled up with the amounts received from and paid to the masters, should be sent from the central committee, as a satisfaction to the men. Those earning good wages should not object to contribute if unmarried, as if they had parents dependent upon them they would benefit in case of death, and they are more liable to be maimed for life, and it would be more serious to them than to older men. Besides, they would mostly be young men, looking forward (judging from the habits of colliers) to marrying before many years; and, of course, by contributing to the fund before marrying, when they can best afford it, a lower rate of payment will suffice afterwards. I see no necessity to allow 5*l.* for a funeral, as they are usually provided for in the sick club, and if the family receive more than sufficient it will only be squandered, and the demand on the fund needlessly increased. I would allow a widow 10*l.* at her marriage, or the same amount for her funeral, in case she dies without marrying a second time. Now it appears that during five years ending 1860, the average loss of life was 1019 per annum, or one life for 92,608 tons of coal raised, the average quantity raised being 94,367,552 tons. According to the statistics given at the commencement of my letter, there would probably be 547 widows and parents, and 1206 orphans, to be provided for: 5s. per week to a widow would be 13*l.*; 2s. per week to an orphan, 5*l.* 4s. per annum. Supposing on an average each widow is 14 years dependent on the funds before death or re-marriage, and each child seven years before he can shift for himself, then we should require for each widow the sum of 182*l.*, and for each orphan (5*l.* 4s. × 7) 36*l.* 8s.

547 widows and parents, at 182*l.*	£99,554	0	0		
1206 orphans, at 36*l.* 8s.....	43,898	0	0	= £143,452	0 0
94,367,552 tons, at 3s. 0¼d. per 100 tons, 143,517*l.*					

This scheme would form its own reserve fund, and the accumulation of principal and interest would allow for the relief of disabled men, who are comparatively few, and for any inaccuracy in the calculation, until 14 years' experience had been gained, so as to correct the rate of insurance. The income for the first year being 143,517*l.*, and payments only 13,382*l.* (as there would be no *arrears* of claimants from previous years), there would be a surplus of more than 130,000*l.*, so that probably even 1s. per 100 tons would suffice at first. I trust this will lead to a full discussion of the subject. G. H. L.

PERMANENT BENEVOLENT FUND AGAINST ACCIDENTS IN COLLIERIES, &c.—No. I.

SIR,—In last week's Journal you allude to the "great necessity for more *permanent provision* than now exists for the families of those who lose their lives in mining operations." This conclusion appears to meet the views and wishes of many of your correspondents, and is growing daily in the public mind. The question, then, is—How may a general permanent fund of the kind, adequate to the ends in view, be unobjectionably organised and worked? Mr. Joseph Pease (from the extract inserted in your last impression from his plan of relief in cases of the kind referred to) thinks "that a contribution of 4d. per week from the men and 20 per cent. upon life premiums of insurances from the masters, on an aggregate of 46,000*l.* from 46,000 men and their several masters, subscribed annually, would be required to insure in fatal accidents to colliers in their avocations compensation to each of their widows, or nominees, 5*l.* for funeral expenses, 6s. per week for the first five years of her widowhood, 20*l.* paid down if she marries again within four years, and to each of her children, under 14 years of age, 1s. 6d. per week for the same period of time." This, at best, would be a poor compensation for the loss of husband or friend, whose earnings may, probably, be 25s. per week, to say nothing of the disruption of the natural and moral feelings existing between husbands, wives, friends, fathers and children. This, however, is not said in any disparagement of Mr. Pease's benevolent intentions, which if it were possible to carry them out (a point he confesses to be surrounded with endless difficulties to both men and masters, "in the question of insurance" and the complication of risks) would only afford relief in cases of fatal accidents to colliers who may be killed on the premises on which they may be employed; and these provisions are for the widows and orphans of only *one-half* the working colliers of the United Kingdom—*i. e.*, 46,000.

In the Journal of Feb. 1 you said—"When it is considered that the accidents in coal mines have been so numerous that the contributions of the charitable of a *quarter of a million* annually would be far insufficient to compensate those deprived of their means of support through colliery accidents," the necessity of some scheme, or compulsory law, for that purpose "cannot be doubted." Here, I think, you clearly show that 46,000*l.* per annum (even comparatively large as that sum may appear to be) would be quite inadequate to effectually meet the casualties under consideration, supposing it possible to raise it in the manner suggested by Mr. Pease, which is more than doubtful; therefore, we must look out for some more certain and productive sources for an efficient and permanent means of supply to ameliorate, and properly compensate, the family and personal losses and disappointments in question; and I hope to clearly and satisfactorily show, in the course of this series of communications, that for a small contribution from working colliers and others than 4d. per week an annual aggregate of more than *quarter of a million sterling* may be raised for the benevolent purposes herein referred to, and that without any arbitrary tax or impost upon either *coal, coalmasters*, or *colliers!* This may, probably, sound strange, strong, and doubtful, in the ears of persons not thoroughly acquainted with the "magic of figures," and the modifications of their significant powers, if I may be permitted to fairly do so in your liberal and extensively-circulated Journal, so that the question may be fully ventilated, and its merits duly investigated (for it is a question not to be hastily determined by the brightest or most experienced head in Europe by the able pen of yourself and those of your talented correspondents, including scientific and practical coalviewers, engineers, Government Inspectors, and others, who may feel an interest in the highly important subject under consideration.

Before going into the financial part of the business in question, I will to say a few words with respect to the munificent Hartley Relief Fund. Your correspondent, "A Friend to Miners," in last week's Journal, says that "the Newcastle committee of this fund have resolved that the surplus, not required at Hartley, shall be distributed, not generally to the unfortunate amongst all the mines, but only to those of Durham and Northumberland!" Surely this cannot be true: if so, Justice and Mercy would appear to have taken flight from the "homes and bosoms" of some of the boasted "merchant princes" of poor old England; for both justice and mercy clearly indicate that the suffering families at Merthyr Tydvil are entitled to a part of the overplus of the nationally subscribed fund in question, and more especially so since the Merthyr committee ask for only 3000*l.* The Rev. John Griffith, rector of Merthyr, says on this point—"He knows there is a strong feeling on this subject, and that the poor widows and orphans of his parish do not meet with that sympathy which they otherwise would have met, had it not been taken for granted that a portion of the surplus of the Hartley would be given to the Merthyr fund."

"A Friend to Miners" also says that the Newcastle committee, "in order to aid in accumulating those funds for futurity, the poor families at Hartley are receiving scarcely much better allowances than what the parish would give—something less than 5s. per week for each widow, and 2s. 6d. for each orphan." Is this "opening the hand wide to our poor brothers in their distress? or, "in the spirit of becoming husbands and fathers to those poor families," as the Bishop of Durham said at the Newcastle meeting? Shame on such niggardly treatment on the melancholy occasion here referred to; it is an exact parallel to "robbing the poor because they are poor." Your correspondent, "G. B. S.," also, in last week's Journal, says, "In Belgium miners' provident societies have been in successful operation ever since the beginning of the present century (here we have the test of a long experience of the great utility of such institutions), and there are always funds in hand to meet the society's expenditure; which funds are thus provided—the men pay about one 1d. in the 1*l.* upon their earnings, the masters subscribe an amount equal to that contributed by the men, the Government give a small yearly allowance, and private individuals contribute voluntarily." Here, to some degree, is foreshadowed my proposition (to be fully explained in my next letter), for a general and permanent "Benevolent Fund," for meeting, in the fullest possible manner, not only all kinds of accidents in collieries, but in mining pursuits generally; and both the principle and practice of the institution may be beneficially extended to afford instant relief and compensation in all cases of accident whatever. "G. B. S." also says (and this is a point claiming serious attention), "private associations, however grand a name they may adopt, are totally unfit to be entrusted with funds for such a purpose as herein referred to." From the defalcations of men of apparent high-standing and respectability during the last ten years, there is every reason for coinciding with the severe observations just quoted. "G. B. S." likewise, refers to a "rather" awkward affair relating to the "National Association for the Relief of British Miners," which has received 299*l.* 6s. 7d. for the Hartley Fund, which has not been handed over to the committee, and it is complained that even the fifty guineas which the promoters of the association offered to subscribe has not been yet paid to the Hartley Fund. Now, if this statement has the slightest foundation in truth, I would respectfully submit that it becomes the bounden duty of the *Mining Journal* to well ventilate the circumstances, as the guardian of miners, and of mining interests generally, were it only for the credit of the National Association in question—an institution which claims to be considered the "friend of British miners," which ought to be, like Cæsar's wife, free from all suspicion, with regard to its financial affairs, or all public and individual faith as to its integrity and honour would soon be destroyed.

S. B. ROGERS.

Newport, March 18.

COLLIERY ACCIDENTS—BENEVOLENT FUND.

SIR,—In the Journal of March 8, Mr. S. B. Rogers suggests a plan for affording relief to miners and their families in case of accident. He proposes that a *fund* should be raised by "passing a short Act of Parliament (or individual coal proprietors, ironmasters, and their workmen voluntarily agree) to levy a contribution of 1¼d. per ton of coal raised (the masters 1d., and the workmen ¼d. per ton)." Now I do not think this will meet with very warm reception from the colliery owners, as it does not appear just or fair that the owners should contribute twice as much as the workmen, who are in reality the only parties who receive any benefit from the Fund. This, however, is not the only objection to Mr. Rogers's plan, the price per ton for "hewing" varies very much, consequently one man might get 8 tons for 4s., and another only 6 tons for 4s.—therefore if these men each contributed ¼d. per ton to the fund, one would pay 8d. and the other only 3d. Now, I think, Mr. Rogers will at once perceive that such a system would not answer. Could not a fund be raised in the following manner:—Suppose the miners pay 6d. per week, the colliery owners ¼d. per ton, and the lessors of the coal ¼d. per ton; therefore 100,000 miners at 6d. per week=130,000*l.*; 80,000,000 tons of coal at ¼d. per ton

3,333*l.*; and 80,000,000 tons at ¼d. per ton=41,666*l.*; this added toge- amounts to 254,999*l.*, which would afford ample relief to the sufferers. *Cornwall, March* 17. W. J. L. W.

MINING BY MACHINERY.

SIR,—The subject of mining by the aid of machinery is now creating a deal of interest. I think I may say I was almost if not the first per- who proposed to bore tunnels by machinery. In 1845, I was invited examine the country between Carlstadt and Fiume, in Hungary, and to rt on the possibility of connecting these towns by a railway. The chain lps to be crossed has an elevation of upwards of 2000 feet, requiring nnel of nearly 4000 yards in length, which could only be worked at the ends. This tunnel I proposed to pierce by machinery, and my pro- l appeared in some of the continental newspapers at that time. In last impression I observe an attempt has been made with machinery riving a 7-feet heading. From what I could learn of the machinery it is not what is required—the plan I propose is altogether different rinciple. I do not know whether those interested in mining operations ld give their aid; if so, I see no practical difficulty in constructing a hine for driving, say, 3 feet 6 inch headings in almost any class of nd, at a rate infinitely cheaper than by hand labour. If those who any interest in this subject will support the experiments, I shall be to carry out what I have here stated.

, Throgmorton-street, March 17. G. SHEPHERD, C. and M.E.

THE ECONOMIC GENERATION OF STEAM.

,—Any discovery which tends to reduce the cost of generating steam be of the highest importance to every class of our manufacturing in- y, when we consider that the reducing the cost of conveying a train ar railways only ¼d. per mile is equivalent to, or gives an increase of, cent. on the dividend to the shareholders. A week or two ago you an illustration of the invention of Mr. Ismay, and others connected him: that cut does not, perhaps, give the clearest view of the inven- but in an article in the *Mining Journal* the previous week you give, pose on the authority of the inventors, some rather startling figures— by condensing the steam by their apparatus, and returning the water e boiler, they effect a saving of 42 per cent. in fuel. It is admitted e steam can be so condensed, and the water again returned to the without loss of power, it would most effectually and entirely prevent station, and thereby save a great amount of fuel. In localities where ater is very impure there is a great difficulty in keeping up the steam, the boilers are cleaned very often—say, once a month or so. With- nowing anything of the apparatus in question, or having seen the e in operation, if the inventors can carry out what they state, or save 2, but even 25 per cent. in fuel by their invention, they will rank gst the great benefactors to the world at large. It is the great amount l our steamships are compelled to carry which prevents their more al use for commercial purposes. If by adopting this invention a ship erform the same voyage with 40 per cent. less fuel, the saving to a ship company would be enormous indeed. I think it would be well inventors would give the readers of the Journal the result of their iments with the engine now at work. But I should advise them to it to one of our large war-steamers, and by this means test their in- on a suitable scale. GEORGE SHEPHERD, C.E.

, Throgmorton-street, E.C., March 17.

TRACTION OF GOLD AND REDUCTION OF QUARTZ BY A DRY PROCESS.

,—Having observed from the Journal that considerable interest has been attached to the development of gold mining in various districts eat Britain, it may not be uninteresting to your readers, especially to investing in gold mine adventures, to con over the remarks of one who e some years paid considerable attention to amalgamation, the study ich having revealed the immense defects of the present crude method ally adopted for saving gold, has led in its turn to a complete revo- in his views of the system necessary both for reducing the quartz ving the gold by amalgamation. Before proceeding with the subject, eaders will allow me to deviate so far as to remark that I believe ill be found in payable quantities in many of the strong mundic lodes rnwall and Devon—in fact, wherever sulphurets exist; indeed, when ted in several Cornish mines, some seven years ago, I proved gold e in one of them to the extent of 3 ozs. per ton, but at that time my in regard to it were looked upon as utopian.

Mexico the system of amalgamation so long in use is what I may pulp-amalgamation—that is, simply saturating the crushed ore with nt water to form a pulp. A chemical agency, too, is used to dissolve lphurets, while mercury is added by degrees, and is trodden in by when it is allowed to remain for weeks at a time before the amal- separated from the matrix.

California and the Australias a contrary system is pursued, no time er being allowed for the amalgamation to be effected. The quartz hed with stampers, while a current of water sufficiently strong to ne the specific gravity of the quartz and sulphurets that abound in by its mechanical action, caused to convey it as rapidly as it is re- to a fine powder into Chilian mills, and thence over shaking tables; simply conveyed from the stampers over ripples with mercury boxes d, and then blankets, where that gold only is deposited which is of nt weight to overcome the force of the water, fine gold being saved y chance, and in infinitesimal quantities.

ving described the existing systems of amalgamation, allow me now ne the views I entertain respecting them, which necessitates the ction of an entirely different course of action. Mercury has no ific attraction for gold, and it is very generally covered with a film ient tenacity to protect even clean gold when pressed upon its sur- Such being the case, is it to be wondered at that, with the very method of amalgamation described herein as in general use, the bulk fine gold should be lost, more especially when it is considered the ous particles are so infinitesimally small that even the film of water surrounds them must in many cases be thicker than their own dia- indeed, the investigation I have made into the subject has fully d me that by far the largest proportion of gold existing in either d or quartz is so fine that even the film of air which must necessarily tween one particle and another in a bulk of this fine gold, and the point of apparent contact of such a bulk laid on a body of mercury, es a sufficient barrier to prevent amalgamation. This being ad- it must also be a necessary consequence that dampness on its sur- ust add another shield to its protection.

above hypothesis being admitted, it does not require a great amount sideration for anyone to feel convinced that the hurry-scurry style ing the matrix through the mechanical process, by means of a strong of water, must take the fine gold alone with it, and that the thick state of the water tends to keep the fine gold in suspension, assist- escape. Another difficulty to overcome in saving fine gold is the of the sulphurets. Generally speaking the quartz in this colony in minerals, which naturally require a strong current of water to em from the amalgamating apparatus. A centrifugal action is set e current coming into contact with the various angles of the ap- thus operating in its turn upon the metallic sands, which by their gravity have a natural tendency for collecting the fine gold; so o is this the case, that I may mention an instance in illustration out scores of proofs I have to the same effect. While on a recent visit en, I obtained some waste sulphurets from three different companies there, and I found them to yield respectively at the rate or 28 ozs. 29 ozs. 9 dwts., and 30 ozs. of gold per ton, and you, Sir, no doubt to mind that I sent you the *Melbourne Age*, dated July 24, 1860, an account was given of my obtaining 9 ozs. 5 dwts. of gold from weight of waste sulphurets, and a subsequent notice appeared in eral. More attention is being paid of late to the collection of these lphurets, but the methods applied in all instances are of the most ctive. I am also of opinion that calcining the quartz for the pur- liberating the sulphur and arsenic, and rendering the quartz more luable, is a great mistake, and is the means of forming a film on the d rendering the surface of it a repellant to mercury, by which the is increased in the subsequent processes of amalgamation. By g a film is formed on the surface of the minutest particle of gold, this crust is broken by abrasion previous to coming in contact ercury amalgamation cannot ensue, and I feel satisfied that I am tified in stating for every ounce of gold saved in the colony there o two ounces lost. I could state fact after fact in support of my , but the limits of a letter will not admit of it.

t I have said sufficient to satisfy the mind of those most superfi way of improvement, both in mechanical appliances and manipulation. The apparatus by which I propose to overcome the difficulties I have herein enumerated consists simply in crushing the quartz in its uncalcined or raw state, and amalgamating it with mercury also while dry by trituration. By this means I secure—1. The coarse and fine gold previous to any fluid coating its surface;—2. The sulphurets being disseminated throughout the bulk of the pulverised material cannot interfere with the collection of the fine gold by the mercury;—3. The baneful effects of calcination are avoided, the surface of the gold being clean and free;—and lastly, considerably more than double the quantity of quartz can be crushed and amalgamated with equal power in the same period of time, thus materially reducing the cost of production.

The following is the process I propose using to effect complete amalgamation, and the description of apparatus necessary to be employed. The quartz rocks of any size are first thrown into a machine, similarly constructed to a stone-breaking machine, which will reduce with six-horse power from 4 to 5 tons per hour to the size of coarse gravel. The gravel is then conveyed to a triturating or grinding mill, of similar construction to an arastra, where it is ground in conjunction with the mercury to a fine powder. The amalgamation is thus rapidly effected, the mercury being thoroughly incorporated with the matrix, and divided into infinitesimal particles. It is now necessary to convey the dry amalgamated material to a cylindrical puddling-mill, in which sufficient water only is used to form a pulp, where by the assistance of heat the mercury combines again. It then passes to a centrifugal separating-machine, where the debris is finally washed away, and the mercury and amalgam is secured.

In conclusion, I may state that a case of specimens will be exhibited at the Great International Exhibition, showing the results obtained by me by various processes of amalgamation, and the effects produced on quartz, &c., by calcination; and it is intended to illustrate the subject matter of this letter.—*Melbourne, Jan.* 25. C. LEICESTER, Mining Engineer.

MINES, RAILWAYS, &c., IN MEXICO.

SIR,—The correspondent signing "Looker-On," in the Journal of March 1, speaking of Mexico and the Mexicans, is rather severe in his remarks, and must have but a meagre knowledge of that country, its people, and their true character, and is certainly labouring under an egregious mistake in supposing that the Mexicans are a debased people, or that their habits are either ferocious or brutal. On the contrary, there are no people on the face of the globe easier governed, more polite, hospitable, and trustworthy. Had he said they were indolent, I would agree with him on that point, as they are too much so to be very ferocious. That the country is overrun with banditti cannot be denied, and that there are great atrocities often committed by them, but more especially on Spaniards, to whom the Mexicans have no particular liking, perhaps through the reminiscences of their troubles under their rule. What wonder is it that murder and rapine so often occur, when nearly one-half of the population have no employment? The state of anarchy which the country is in is alone sufficient to account for this. Yesterday the church party were in power, to-day the liberals are predominant, and when one party comes into power the others are permitted to walk out—in fact, they are obliged to do so. Then from the President to the common soldier they divide themselves into bands, and scour the whole country. Rendered desperate by their circumstances, they turn to robbing as their only source of subsistance, and so they carry on till they gain strength and unite again, which ends in a descent on the capital, which is often responded to from within by the well-known "Pronunciamiento." Then comes a short struggle, and all is over again. Out goes the other party, to give room to their more successful antagonists, and to follow in their footsteps. Such is the state of affairs there, and the way in which empires are raised one day and the next levelled with the dust. With these proceedings all commerce is put a stop to: works are left idle, mines unworked, and lands untilled. Then, how are these people to subsist? Robbing follows as a natural consequence attending the misrule of the Government; but as we have none of these doings in happy Old England, an Englishman on entering that country under the present circumstances finds it hard and strange on the road from Vera Cruz to the capital to have the diligence stopped, to be ordered out, and a pistol put to his head, his pockets and trunks turned inside out, with the never-failing accompanying words *Boca á bajo* (mouth below, or to the ground); this is often repeated during the journey (which generally lasts three and a half days, as the distance is 100 leagues), but seldom attended with violence, unless resistance is offered; but these are but trifles peculiar to the country, and a person soon gets accustomed to them: they are as the days of Robin Hood in England. Those alone who have resided with these people are able to judge of their merits and true character; as faithful servants no people can surpass them. You experience no difficulty in travelling through districts not infested with robbers, and can safely lay down in the corridors of the different posting-houses with your *talegas of dollars* for your pillow with as much confidence and security as in any of our hotels in England.

Englishmen should be the last to rail against these people, as they are respected and honoured more than any other nation by them, for very obvious reasons, and as they say *Los Ingleses son trabajadores* (the English are men that work); this is true, they are the only people there who endeavour to establish manufactories, &c., for the benefit of the country, and teach the natives the various trades connected with them. They prefer the English to any other nation—in fact, everything from this country is always at a great premium. I have often heard men of the highest standing there say the English were the only people they wished to see in their country, as their own people were equal to every office there, and they only wanted those who would establish works, &c., for the advancement of their country. If a company were formed to carry out the long-projected railroad from the coast to the capital, it would at once open up the resources of the country, and be a safe and profitable speculation for capitalists.

Mining speculations at the present time present many difficulties, which are little known in this country. It is true that there are many paying mines there, but at what cost have they been brought to that state? Where is there any security for such operations in that country in establishments less protected and not equally as well managed as the Real del Monte and its neighbouring mines? Their works are well fortified, and all their foreign workmen (Englishmen) are well armed, besides their regular troops, who are kept at an enormous cost to protect their property. Why the "Looker-On" should condemn the system of mining there, which he considers wretched, I am at a loss to conceive. I have a knowledge of many silver and other mines, and which I know are conducted in the most efficient manner by their respective managers: where could be obtained cleverer men then the Messrs. Rule, Chester, Rabling, Skinfill, &c., all managers of the most important mines in that country, and who have been brought up from their cradles in mines of this sort, and are men on whose integrity and opinion the greatest reliance may be placed.

English and French capitalists (instead of projecting railways across the channel) would do well in turning their attention in the direction of Mexico —those indeed glorious but undeveloped regions,—and carry out the above-named railroad from Vera Cruz to the city of Mexico, and by that means make it truly the richest country in the world. There are certainly difficulties to contend with, but there is an abundance of means available to overcome them. Far greater ones have been surmounted in this country by our great Brunel and Stephenson. There are ample elements to do so: labour is cheap; materials of every description plentiful, the principal part of the country being well wooded, through which such a road must pass. There are ironworks in the neighbourhood of the city of Mexico, conveniently situated, and which are well supplied with the necessary materials, and could be made with a small outlay available for rails and other necessary purposes, but which are now lying idle. To be able to commence such a road from Mexico as well as from Vera Cruz would be a great object; from the former place could be sent down materials to the coast, where there is a scarcity, and which would be too expensive to import, thus overcoming one of the chief obstacles. No one with a knowledge of the country can entertain a doubt of its being a paying speculation; many are not aware that to get to the city of Mexico from Vera Cruz you have frequently to pay from $75 to $100 for a seat in the diligence, and are often obliged to wait a week for such accommodation, which depends on the state of the roads. The distance from the city of Mexico to the town of Pachuca is about 25 leagues of a continuous plain, which offers every facility for a railway. The Real del Monte and all the neighbouring mines in that district are in close proximity to this town, which is large, and there all the minerals and materials could be concentrated, as the only road to the capital from that district passes through it. By tunnelling or inclines access could be obtained to the town of Real del Monte and its adjacent villages and mines, which, together with Pachuca, have all the appearances of English towns, on account of the vast numbers of English people employed there, and which are so good a guarantee against the attacks of robbers, which of late are rare. This railroad would be one of the best and surest specu cially acquainted with the subject that there is much to be done in the lations; but a small capital would be required for it, and Mexicans would not lack in joining such an enterprise. They have capital, but require leaders. There are no natural obstacles in the way—in fact, everything to favour such a scheme, which would prove far more profitable than turning the Mexicans out of their own country. E. B. MONRO.

Wildon Works, Abergavenny, March 10.

BITUMEN IN GRANITE.

SIR,—Having noticed communications in the Journal relative to the existence of petrolium in granite, and as some doubt seems to rest on the subject, allow me to state that I have in my rambles discovered "albertite" (a close ally of petroleum), lying in small veins in granite, trap, mountain limestone, and also in the alluvial overlying those rocks. The locality is a mountain top, some distance from coal-bearing or other tertiary rocks, and some ten miles from the famous Albert Mines, in about the course of that vein. I think it probable this may have been injected through fissures opened by expansion of bitumen and gases evolved by internal heat from coal seams, which fissures may have extended to more elevated primitive rocks. The coal measures in this locality are some eight or ten miles deep, I judge from exposed strata; so it may easily be imagined that at certain distances the heat of the earth, according to its intensity, would separate the bitumen rock oil, or gas, leaving anthracite behind.

St. John, New Brunswick. JAMES J. FELLOWS.

MINERAL WEALTH OF IRELAND.

SIR,—I am glad to perceive that attention is being again directed, through the Journal, to the neglected mineral wealth of Ireland. I am satisfied there is in this country a great field for mining enterprise. The companies at present in operation, it should be remembered, are of but comparatively recent date, and embrace but a limited field of enterprise; two of them, however—the Wicklow Copper Company and the Mining Company of Ireland—can boast of a very marked success. There are localities, however, yet untouched where it is known that mines of iron, coal, copper, &c., exist. In the county Leitrim, for example, there is abundance of coal, but totally unworked. So, in the County Cavan, the iron may be seen in places cropping from the ground. The reason, I have been informed, why this iron mine has not been opened is the dearness of coal for smelting purposes. Whether this is a satisfactory reason or not I am unable to state; but the coal mine I refer to in Leitrim adjoins very nearly the iron in Cavan. Besides, there is abundance of bog, and it may be a question whether peat might not be made suitable for smelting.

March 17. HIBERNICUS.

THE GOVERNMENT SCHOOL OF MINES.

SIR,—The writer of a letter on "Our Miners, Mining Schools, and Chemistry—No. III.," appears to pride himself on being a "practical" man. Now, I do not know what his definition of a practical man may be, but one thing is very certain—that he is anything but practically acquainted with the Museum of Geology and the Government School of Mines; or if he be well acquainted with these institutions he wilfully misrepresents the objects for which they were formed.

Mr. Ennor (of whom I know nothing) commences by saying "it would have been far better to have decorated these galleries with good copies of maps and sections of mines and machinery." By "these galleries" I presume Mr. Ennor means the principal galleries of the Museum; and if so, why, I ask, should the present contents give place to maps and sections of mines? If the building be primarily intended for the purpose which its name denotes, then most certainly its chief walls and galleries should be devoted to such specimens and drawings as will best illustrate general geological science. I can testify from experience that the present most admirable arrangement of geological, palæontological, and mineralogical specimens, not only does the greatest credit to those gentlemen who have laid them out, but is of the utmost value to every real student.

Mr. Ennor goes on to say—"Were I in the School of Mines there should not be a single improvement in any part of mining and machinery but what should be drawn on a large scale." It is a good thing Mr. Ennor has told us that he is a *practical* man, for no one, after hearing this suggestion, would ever give him credit for being so. His idea is more what might have been expected from one of the *rawest* of those young "would-be scientifics," whom he so much despises. May I ask where Mr. Ennor would obtain his information regarding "every recent improvement in machinery and mining," and how he would obtain "his large scale plans?" Does he think that the manufacturers or owners would gladly hasten to present him with copies? or does he think that the Government would at once advance all the large sums necessary for their purchase? or, perhaps, as he seems very ambitious of distinction, he proposes to pay all the expenses himself. If the latter be his intention, I should strongly recommend him to make the Government a suitable offer, and then possibly, in consideration of his patriotism, he may obtain that Department in the School of Mines which he so evidently considers himself thoroughly qualified to fill.

Mr. Ennor next attacks the Professors of the School of Mines, because the students whom they have instructed are not, when they leave, "practical men," by which I understand him to mean are not at once fully qualified to take charge of mines or manufacturing works. I ask in what scientific school, either in England or on the Continent, is this even pretended to be done? Every scientific man knows that it is only general or special theoretical science that can be taught in schools, and, therefore, Mr. Ennor's taunt is as utterly untrue as it is undeserved.

The Government, in 1851, very wisely formed the School of Mines to supply a manifest need—to give to the sons of our manufacturers and mine owners such an opportunity of obtaining scientific knowledge and habits of close observations, as should, when combined with practical experience, aid the general advancement of manufacturing industry.

Mr. Ennor further complains that the Government put the trained students of the School on the Survey, instead of picking up "practical" men. Where, I ask, is the Government to meet with such "practical" men—that is, men acquainted with all the details of geological surveying? Would a Cornish captain be fit for the business? Mr. Ennor may think so; I should doubt whether anybody else would.

Mr. Ennor has also thought fit to notice, in a tone of sneering depreciation, Sir Roderick Murchison's sagacious phophecy that gold would probably be found in Australia. Mr. Ennor, as a "practical" man, and a writer of newspaper letters, should know that every attempt to undervalue well-deserved merit only recoils on the author, and usually obtains for him the credit of one of three motives—prejudice, ignorance, or jealousy.

Sir, as a former student of the School of Mines, and now entirely unconnected with Government employment, I think I may, without being suspected of interested motives, venture to give my testimony in favour of the excellent management of that School. I can also, with equal truth, say that I shall ever feel grateful to its Professors for the zeal, perseverance, and ability with which they at all times sought to aid the progress of the students under their charge. C. H. BURBRIDGE HAMBLY.

Taptonville, Sheffield, March 18.

THE GOVERNMENT SCHOOL OF MINES.

SIR,—Your correspondent, Mr. Ennor, seems to have fallen into strange errors in his attack upon the Government School of Mines, and its method of teaching. I cannot refrain from correcting some of the notions which he has given to the world through the medium of the *Mining Journal*. The antagonism between Practical and Scientific men is now getting very old-fashioned; and, indeed, not before most sensible men were sick of this common antithesis, when speaking of any enterprise demanding a knowledge of scientific rules, and the skill of mechanical arts. The system pursued by the professors at the School does not propose to make experienced miners or directors of chemical works by a course of lectures and models of machinery, *but it does prepare men for such positions with no small degree of success.* Of the men who have passed the examinations, and have become entitled to the distinction of Associate of the Government School of Mines, Mr. Ennor might, if he chose, learn that all are engaged in lucrative and responsible posts, and *not* all on the Geological Survey. Mr. Ennor's practical mind goes straight to the point when he intimates his belief that none have ever made a penny by what they learned at Jermyn-street. Now, that is the question. Does it *pay* to learn all about the theory of mining, of chemical manufactures, and so forth? Because, if it does, the instruction is valuable, and the commercial, as well as the scientific world, will have found it out. Personal experience on this point must be with modesty offered; but in defence of the Government School of Mines and its talented professors, as an old student, I say emphatically, *it does pay.* I have turned my honest penny by it, and can point to two inventions on the Patent List which have already paid me well, as a proof

that the instruction is worth having. I recommend any young man of average ability, with the least taste for the physical sciences, to enter as a student, work hard for a year or two, and he will find it an uncommonly good speculation.

WILLIAM BAKER,
Lead Works, Sheffield. Associate of the Government School of Mines.

OUR MINERS, MINING SCHOOLS, AND CHEMISTRY—No. IV.

SIR,—I have not a doubt but the promoters of the Mining School are well-intentioned men. Some of them, I think, have lived most of their time in Cornwall, and in daily connection with the metallic miner; but, rather unfortunately for the public, instead of gathering Nature's laws from the old Practicals in the district, preferred the advice of the old Plutonic and fossiliferous society on things quite foreign to Cornwall, and unwisely supported and kept up by those who should have been the leading men in Cornwall's mineral resources. Mr. Hunt's statistical accounts, kept at the School, are very valuable; and I give him credit for his endeavours to make them as near to correct as he can. The other part of his business is to keep the plans and sections of mines filed in the office; I think the mine agent or proprietors are bound by law to furnish him with them—if not, they should be. The late lamentable accident in Wales tells its own tale on this point; it is continually happening, and if Mr. Hunt has not the power to compel agents and owners of mines to do so, he should call on the public to aid him to get a law carried out for that purpose; if it is already the law of the land, he should turn informer against them. I have never heard of his compelling anyone to do so, and if it is not already the law, Mr. Hunt ought to solicit the aid of the miners to petition for it, as he is aware there is now a Committee appointed to report on what is required to be done to prevent such wholesale destruction of miners as occurred at New Hartley and in Wales. Mr. Hunt must be aware that the main beam of an engine would not be allowed to fall in a shaft in Cornwall. If there were correct sections to be seen at his office, it is not likely the Welshmen would have let in the water to their own destruction, as was the cause of late: means would have been used to let off the water. It is clear to all that parties abandoning mines should be compelled to send correct plans and sections to his office, and he should be empowered to send a man underground at least a week before any mine ceased to work, to test it; this would save the lives of hundreds, and be invaluable to companies that might again wish to re-work the mine. Passing by Mr. Hunt, I return again to the Mining School, and ask if they have a single Practical mine pupil in it; are they not a class of people who rather consider themselves above doing practical work? In that case they never can become useful miners or mine managers. Not one of them ever learned a single freak of Nature, neither do they know the difference of gossans produced in the lode from each different substance. Then I ask if it is not monstrous that the pupils from these schools should monopolise every Government situation, in preference to well-taught Practicals, not one of whom can ever get an appointment to such situations? Need we feel surprised at engine-beams falling into shafts, in districts where mines are surveyed by pupils from these schools? I know many of them, and have surveyed mines with them, and have been in their company for days together, and have had to write to the Secretary of State, showing their ignorance. They complain of having too much to do—too many mines placed under their supervision; in fact, they say so many that they cannot attend to them. I ask the Secretary of State if I have not more than once complained of these paid Government Inspectors absenting themselves from their districts for a week together, surveying private property, for which they are getting their five or ten guineas per day, when their own districts are almost totally neglected? Had they been practical men, and kept in their own districts, we should have had no beams falling in the shaft, destroying men by hundreds. As a proof I am right, are there not petitions getting up in the coal districts, by the coalowners, to have a number of Practicals appointed as underviewers of their mines? It is from them the overviewers should have been selected, and not from the Government Schools, because certain men give them a certificate that "they believe in their doctrine, and they left their schools as able pupils." Having described what I think of the Jermyn-street School, I will in my next describe what it ought to be.

NICHOLAS ENNOR.

MINE WATER v. FISH.

SIR,—I must again repeat that but few anonymous correspondents can withstand the test of public scrutiny; and I consider the man who condescends a reply to such communications below par. However, if "C. T." will stand out boldly under true colours, I am quite prepared to discuss with him the points on which we differ. For the information of the public generally, I would request a reperusal of my communications, where it will be found I have shown what should be done with noxious and superfluous mine substances (not ores).

My experience of the abominable Fisheries Act has been obtained under conditions that would induce its most earnest advocates, if not openly to condemn, secretly to say "I wish it had never become law;" and this, too, on a stream which, more than 400 years ago, the King of England directed the then Lord Chief-Justice to visit, and whose decision was that the miner had a right to soil or dirty the water from sunrise to sunset. The party disputing my right to dirty the water employed ten men, who were engaged for eight hours of the day in conveying foul substances of all kinds into the stream, to test its effects at the point where the water was alleged to have been fouled; the result was, that in forty glasses of water dipped from the stream at quarter of an hour intervals, no fouiness could be detected. Nevertheless, a celebrated chemist and assayer asserted that, having come from a mine, it was very poisonous, although he could not define the contents or quantity of poison contained. Therefore, the law supporting such arguments is most pernicious to the mining interest, oppressive to the mining community, and the sooner it is repealed the better. Does not the filth and sewerage of London foul the Thames, and prevent the fish going up it? Yes. Then why not pass an Act for closing all common sewers? It is equally justifiable with the closing of mines and factories that are said to contaminate the stream into which their superfluous matter falls. The point for consideration is, which shall be sacrificed? The vital tree, planted by the British metallic miner, whose first flowers were the emblems of British liberty, and the foundation of a commerce that bears the extraordinary taxation of fully 100,000,000*l.* annually—a tree that knows no equal—shall such, I say, be sacrificed to the Fisheries and Game Laws? the nurseries of thieves and vagabonds, which it requires 3,000,000*l.* of the public money annually to keep at bay?

For the consideration of your readers, I will quote from the Fisheries Act one of its clauses, as follows:—"Persons permitting noxious matters to flow into any stream containing salmon, so as to destroy the fish, shall, on the first conviction, pay 5*l.*; on the second 10*l.*, and 2*l.* per day; and for the third, 20*l.* per day." We know that salmon plays about the mouths of rivers; should a dead fish be found, no matter from what cause, if a mine is within fifty miles, the proprietary are certain to be charged with the death, and proceedings taken against them, which ends in their having to purchase the fishery or abandon the mine—myriads of vagrants being every ready to swear that death was caused by mine water. Under the present Act, no new mine or factory can be opened, as all pour noxious matter into the streams, which, I contend, are public highways. Miners generally are not aware of the position in which this Act places them. Mine water kills fish, and the owners are open to action—even the old mines are not exempt; therefore, it is the source from which tens of thousands will be spent in law,—the country ruined, all to support nurseries for thieves and vagabonds. The miner will have to assert his right, or emigrate to where his value will be estimated by a higher standard, and his services appreciated.—*March* 20.

NICHOLAS ENNOR.

BASTIER'S CHAIN PUMP.

SIR,—The second means Mr. Bastier suggests for securing the safety of the bottom of his pump from injury will answer, except when the charge is fired directly under it, as is sometimes necessary. In such latter case would the first means he proposes be applicable? He states a part of the apparatus can be detached and reinstated quickly; but would it be sufficiently so in case of quick water? I asked how the pump would avail in runs or falls from sides of old shafts, not its applicability to incline shafts. It seems difficult in forking old shafts, or in sinking new ones, to keep the bottom of the pump sufficiently close to the bottom of the works, to keep off the water efficiently, and this from the disc revolving under the pump, and liable therefrom to catch in the rock and injure. In the ordinary pump, the drawing force being a little higher than the bottom, such casualty is unlikely to occur, while the nose of the windbore can be forced to the lowest point, and insure complete dryness. I am glad to find the apparatus occupies so small a portion of the shaft. In practice, is the chain liable to stretch? In reply to Mr. Bastier's question—proper bearings being prepared at surface of shaft, and yokes fastened thereto, the ordinary pumps are lowered through the yokes, by means of the capstan rope, and suspended. A few fathoms being forked, corresponding yokes are applied at such increased depth, by means of which the lower end of pumps are kept steadily in position; so, again for succeeding depths. Any loose ground is secured as discovered. Thus, no support is needed from the bottom. I thank Mr. Bastier for his attention to my queries, and again wish him success, my sole aim being to see if the invention work well, in case I needed to apply it.

DEVON.

A FACT FOR GEOLOGISTS TO CONSIDER.

"Every valley shall be exalted, and every mountain and hill shall be made low; and the crooked shall be made straight, and the rough places plain."—ISAIAH, chap. xl.

SIR,—The other day, while surveying those mountains called Gosybrynian, east of the Moeltryvan Slate Quarries, about five miles south of Caernarvon, I came across an adit opening to reach a continuation of the well-known Bangor slate vein, where the workmen had proceeded due west above 100 feet, encountering nothing else but a *mass of drift-sand*, containing here and there detached boulders at different depths, but how much deeper such loose sand and stones are deposited remains to be seen; therefore, the question is, how came so many feet thick of sea-sand and rocks to be lodged on the *lee* side of hills for miles, parallel with the present line of coast, and several miles from it, while scarce any loose debris covers the *weather* side of the same range and *altitudes*, while the valleys are mostly covered with peaty earths? If the sea itself had ever flowed over the slate and other rocks (visible or) embedded under the sandy accumulations, was it before the saline water had receded to its present level, or before the said surfaces had got exalted 1000 feet or so above modern tidal actions. If the earth, then, whether formerly lower or as high as now, had ever been inundated, would not both sides of the hills and valleys of similar heights be covered with sand, and similar water-worn nodules, besides other vestiges of marine deposits? whereas only the off, or lee-side, now shows deep accumulations of foreign matters on the surface irregularities of the mountains in question. In those places where the wind drives the sand from the strand, it generally lodges on the side nearest the sea, like those hillocks visible on the coast road through North Wales, or the Darling range in Western Australia, where I have often trudged over thousands of acres of sandy undulations without encountering a stone, and yet the very sides of certain Welsh hills show heavy solids of various kinds interspersed amidst drift-sand, in places where no tidal motion or falling debris could carry them, unless those parts have subsequently rose above the surrounding scenery and tidal vagaries. To suppose the relentless ocean had ever rolled its waters in such a way as to wash off every loose vestige from the weather side of mountains, so as to leave the original rocks bare, and protruding on areas hundreds of feet perpendicular above modern high-water mark, to deposit the loose detritus on the lee-side of such elevated surfaces only, would be to expect unnatural impossibilities; nevertheless that some of those areas now covered with masses of marine deposits were once within reach of rolling waves may be inferred from the fact that large pieces of foreign timber, &c., have been found entombed deep in sand and gravel, the same as often found buried on sea-shores by resistless surges, and covered over and over by subsequent transmovals, and yet the places where such ligneous immersings have occurred are now hundreds of feet beyond the heights of modern oceanic influences; consequently, such ancient solids could only have been washed there, and subsequently covered when those surfaces of the earth were within reach of the rolling elements, which spots must, therefore, have since locally risen to their present eminences above the level of surrounding localities, &c., whether before or after the reaction or deluge is not the question, but from what causes have the sea and land got so vertically separated and horizontally disturbed? For if such places were once valleys or level plains contiguous to the sea, have they since *gradually grown* by some invisible operation working in Nature, or become *suddenly inflated* by any gaseous expansion to their present configurations? &c.—*Caernarvon, March* 18.

G. F. GOBLE.

UTILISATION OF PEAT—NEW FUEL.

SIR,—Referring to two articles on the "Economic Treatment of Peat," which appeared in the Journal of March 8, I beg to ask whether the repeated attempts which have been made to adapt peat to industrial purposes, by means of pressure, coking, &c., with no useful result, do not show that we must seek the proposed end by another course? I happen to have met in Germany with an apparatus which has been invented and patented for the purpose of converting every kind of combustible into useful fuel. This apparatus professes to be able to obtain the highest degree of heat from all kinds of inferior fuels without previous preparation, such as peat, brown coal, anthracite, wood, &c. This is accomplished by converting all sorts of fuel into gasses, and by the admixture of heated air, steam, &c., with these gases converting them into flame. I understand that there are patents now working in France, England, and America, for obtaining heat in the same way; but the German patent to which I allude professes to have this essential superiority—that all the other plans hitherto in operation require to be frequently stopped to feed in fresh fuel, or to remove the ashes, &c. These interruptions in the supply of heat are necessarily very inconvenient, and cause a loss of time and of heating effect, &c.; whereas the German patent professes to keep up an uninterrupted action, so that the flame of the gases is applicable to all sorts of purposes for which a strong heat is necessary, such as the baking of pottery, glass-making, puddling iron, steam-engine boilers, &c. The heat is under complete command, so that its degree can be regulated to a nicety. Even with the best of fuel this apparatus, by consuming all the smoke and gases, is said to cause an economy of from 30 to 50 per cent. over using the raw fuel.

What I want to ask through your widely-circulated Journal is, whether (if the apparatus in question fulfills the objects I have mentioned) its utility would not be very great, and whether any of your readers are disposed to treat for the right of taking out a patent for the United Kingdom? The proprietor declines to register it in England, or to show the drawings, specifications, &c., but I am empowered to treat for the disposal of the English patent on the following conditions:—Anyone willing to purchase at the price asked shall enter into a provisional agreement to pay the amount named, in case upon coming here and seeing the apparatus at work he shall be satisfied that it accomplishes the objects professed, and realises the advantages claimed for it. As such an invention is of national importance, I trust you will do what you can to call the attention of those capable of estimating its advantages to it, and I shall be glad to enter into communication with any parties inclined to treat about it, who will address—T. T.: *Mining Journal* office, 26, Fleet-street, E.C.

THE BRYN GWIOG ACCIDENT.

SIR,—Reading a letter signed "R. Nankivell," relative to this unfortunate affair, in the Journal of the 8th inst., I think it only right that some persons who have not a one-sided feeling in the matter should explain their opinions a little on the subject. I beg, therefore, to state that I was frequently on the mine while the poor fellows were buried beneath, and often an eye-witness of the exertions of the agents, Capts. Evans and Painter, in endeavouring to get the bodies out of their watery graves, and relieving, so much as possible, the wants of the poor bereaved families; and, after which, to find the first remark relative to the said accident which appeared in the Journal censuring them in the manner that Mr. Goble did, I can but say shame to him, for it is evident he could have had but little idea of the nature of the accident, unless he had a reason for trifling with honest men's feelings by attempting to expose them to the scorn and indignation of the world. If Mr. Goble had a reason for pouring out his venom on either of the respective agents, he should have waited the decision of the jury, a body of respectable men, chosen for the purpose out of an old mining district, who might be considered the most competent judges, and after hearing their verdict then to have made his comments, whereby he would have caused the circulation of a proper feeling, instead of such as his hasty remarks may lead some to entertain. I may assure Mr. Goble that a stranger coming into this country, and having the control of so many men, knowing but little of their ways and language, with such a deplorable accident as this, such as was scarcely known before in a metallic mine, has quite enough to put up with, however clever, without his own countrymen being the first to condemn him, and this without even a cause. A prisoner at the bar being tried for wilful murder has the benefit of a doubt; but in this case all was purely accidental. A certain level had been extended west towards the old part of the mine at a considerable distance, and at last, from causes unknown to me (but not for fear of coming in contact with the old workings), this level was suspended, then perfectly dry; the engine-shaft was again sunk about 11 fms. deeper, and then another level commenced, but not driven so far west as the upper level by about 30 yards, where the accident occurred. Would any man of common sense expect this? Mr. Goble speaks of keeping bore-holes in advance. This is often done in mines where danger is expected to be near, and I doubt not, if the agents at this mine had for a moment thought that the poor workmen were approaching such danger, they would have used the necessary caution, a system so well known to such experienced men as the Bryn Gwiog captains; but, from the cause explained, a man would be considered as insane in the eyes of a miner to have attempted anything of the kind, for it could not be expected under the most minute inspection. Moreover, there are lodes in the Bryn Gwiog, as well as in the majority of mines in the limestone districts, where even the principle of boring could not be carried out, for in many instances levels are driven for from 15s. to 20s. per fathom, composed of entire clay, and in some cases sand, and at these points such accidents are most likely to occur, as experience has taught us that when we are on these soft channels we are approaching subterraneous passages, commonly called "swallows." How, then, could you bore? I have but little doubt, when the matter is fairly known, that this was the case at Bryn Gwiog. I have seen these swallows at a depth of 200 yards, and often at from 80 to 100 yards deep, varying from 1 foot to 30 yards wide, and, in many instances, water roaring through them as if coming from a sea; therefore accidents of a similar character may occur, and no one, as in the present case, to be blamed, which shows the necessity for a National Club.

A "Looker-On," also, in last week's Journal, says—"I have been informed that a bore-hole had been kept 6 ft. before the men, and why was it discontinued," &c.; and that "an old man (Humphreys) had walked seven or eight miles to warn the men of their danger:" and concludes by saying "if it were really true," &c. Why does not "Looker-On," upon so grave a charge as this, first take the trouble to enquire if it were true, which I have done, and found from the best and every authority that there is not the least foundation for such an assertion? I have taken the trouble to go to many of the miners who worked in the mine before and after the accident, who previous to working at the Bryn Gwiog Mine were in my employ for many years, and they tell me, in their own language, that "It is entirely false;" therefore, give honour to whom honour is due.—*Holywell, March* 19.

J. TREVETHAN.

GOLD WORKINGS—THE BRYN GWIOG ACCIDENT.

SIR,—Open rebuke is better than secret love; and I beg to assure Mr. Goble I have not the least ill-feeling or wrathfulness towards him, as he supposes; but while he blows his "gold trumpet" at Dolgelly, playing the tune "Come buy," he must allow others to caution parties as to what they do buy. Gentlemen, in laying out their capital on dividend mines, such as copper, lead, or tin, in general get good returns, but in the so-called gold mines of Wales all that can be seen is quartz, said to contain gold, but by the aid of the microscope the gold is not to be seen. Allowing it does contain particles of gold, the old adage is—If one guinea between two rocks would cost two to get it out, it would be better to let it remain. Mr. Goble may have resided in Victoria more than 20 years, and written letters to the Melbourne papers, pointing out where gold might be found; it was no more than storekeepers and others did who were never five miles beyond Melbourne or Sydney. The employment in Victoria previous to the discovery of gold was chiefly watching sheep, driving bullocks, or keeping stores; and presuming Mr. Goble to have been so employed for 20 years, he cannot be considered a very efficient miner. As to his pamphlet, "Hints to Gold Diggers and Buyers," I do not consider that such information was needed in Australia or any other gold country: most people can look well enough after themselves without any such teaching. The discovery of gold in Australia was simply this: a Mr. Hargreaves, a resident of New South Wales, went to the gold fields of California; seeing the nature of the auriferous soil resembled that of New South Wales, he became convinced there was gold in Australia, hence he returned to search for the precious metal, and found it in the place now known as the "Ophir Diggings." He returned to Sydney, bringing gold with him. Mr. Hargreaves then goes to Victoria, and finds gold at Ballarat, and for the discovery he has 500*l.* per year from the Colonial Government. Mr. Goble asks—"Did anyone fit out more small gold-seeking companies than myself?" I do not know; but if he had one-half of the spirit and experience that I have, as a miner, he would not have stopped in Melbourne, fitting out a few poor, old, worn-out convicts; he would have gone himself, and dug deep for the precious treasure. *It was the Cornish miners from the Burra Burra and Kapunda Mines who first began effectually to work in the diggings*, and were quite capable of performing the work without the aid of Mr. Goble's pamphlet. In conclusion, I would say I was not one of those disappointed ones Mr. Goble insinuates: I brought back a share of the golden apples; and there is no mistake "Gold is Capital," and I would not like to lay it out in a mine unless it was managed by a man of sound practical experience and acknowledged ability.

In reply to "Looker-On," on the Bryn Gwiog accident, there never had been any bore-hole kept ahead of the end; no Mr. Humphreys or any other man ever mentioned a word to Capt. Evans that there was any danger, and according to the working plan of the old mine there would have been 20 fms. further to drive before reaching the old workings.

Holywell, March 20.

R. NANKIVELL.

EAST GUNNIS LAKE AND SOUTH BEDFORD MINE.

SIR,—In the Journal of March 8 you kindly inserted my note on this mine, and I thought to the simple question asked Captain Gard would have been able to have given a satisfactory reply, instead of merely saying "he declined to enter into a newspaper controversy on a subject totally unfitted for such an arena, but if I applied to the secretary I should obtain every information." I beg to tell Mr. Gard I had applied to that gentleman before my letter appeared in the Journal, and who gave me every information in his power with regard to the mine, but he did not give me the information requested of Mr. Gard, and for the best of all reasons, because he did not know himself, hence my enquiries through your columns. Now, as I have already done as Mr. Gard required me, without obtaining this information, I again repeat the question—"What becomes of the ore raised from the 36 and 46 fm. levels, and the winzes sinking below the 36, valued by himself at 5 tons, or 25*l.* per fm.?" As a shareholder I have a right to put this question, and I think I ought to have a right to a satisfactory reply. I have applied to the secretary, who cannot give, and to the agents at the mine, who, it appears, will not give, this information; and I know no one who ought to be in a position better to give answer to my enquiries than the party who values the lode and sells the ore; but Mr. Gard still thinks fit to refer me to the secretary, perhaps he will inform Mr. Lawe, not be satisfied until I know what becomes of the ore worth 5*l.* per ton. that the lode, worth 25*l.* per fm. in the mine, only realises at the sale 10*l.*, or 2*l.* per the average price of the bulk of ore sold, that taken from the 16, east of Gard's shaft, tion, without any more "newspaper controversy." It matters not to me how I get cepted. If so, why does not Mr. Gard say so, and this will explain the point in enquiry answered, whether by the secretary, agents, or the committee of It is a simple question, and requires a simple but a truthful answer.

A SHAREHOLDER.

MINING IN SCOTLAND.

SIR,—Your correspondent, "Scotia," who appears to augur so well for the future "pair auld Scotland," seems to ignore, or is ignorant of the existence of, the Lochwinnoch and Kame Mines, in Renfrewshire, as well as the ancient copper mines at Gourock, now being re-worked; at all these copper ores quite equal to Cornish have been produced. From the Lochwinnoch Consols upwards of 2000*l.* worth has been raised within months' working. From the Kame nearly 100 tons, the lowest ticketing of which 6*l.* per ton, and part between 9*l.* and 10*l.* per ton. At the Gourock, very large have been made; the machinery was set to work on Wednesday last. "Scotia's" formation must be very slender, or his perception very obtuse, to quote the Erins whose first sale, 2 tons only, realised 1*l.* 19*s.* per ton; the Argyll Mine, declared by Stephen Eddy not to be worth 6*d.* a mile; and the Silver-Craig, whose greatest development he states in the Journal.

As it may be of service to him, I should advise "Scotia" to take a trip to the mines, if he wishes to inspire confidence in Scotch speculations. He would do well to view the Tyndrum, the Leadhills, and the Newton Stewart district, in the neighbourhood of all of which fresh projects are being brought forward.

If "Scotia" would but quote the terms and conditions on which the Erins setts have been procured, he would do the public some good, and give some most valuable information.—*March* 17.

FAIR PLAY.

EAST CARADON, AND EAST CARN BREA.

SIR,—In January of last year East Caradon shares were selling at 10*l.* per share, pronounced by the dealers as being much too dear. Nevertheless advance followed advance in rapid succession, till the present price of 33*l.* has been attained; and from present appearances they are more likely to see 40*l.*, or even 50*l.*, before the close of the year, than that a reaction should set in. The mine never looked better: and from independent inspection, made this week, the agents' report is more that confirmed. The lode in the 50 east is worth 80*l.* per fathom, only part of it is carried, the north wall being seen. The 60 is worth 55*l.* per fm., and now rapidly nearing that part where the lode in the 50 above was of extraordinary richness. In a short time the lode will be cut in the 70, which will be the signal for a great rise. The dividend at the meeting to be held on the 10th proximo will be 15*s.* per share; after which an augmentation of at least 25 per cent. on the dividends may be looked for.

East Carn Brea shares are now selling for little more than one-third of the price East Caradon, and certain it is that no mine in Cornwall is opening up so rapidly, or proving so great a prize. Calls here are at an end, and profits are now being made sufficient magnitude to develope the mine, and lay open its vast resources, without having recourse to calls. For some time past about 1000*l.* per month has been expended sinking shafts, driving levels, finishing ore floors, and laying open about 6000*l.* worth of reserves," or, at a moderate computation, 70,000*l.* per annum.' Against this outlay about the same amount of money value of ore has been returned. Now the costs decrease, and the returns largely increase, and within six months from the present time dividends will be commenced. The mine is opening up beyond the expectations of the most sanguine. The lode in the winze sinking under the 26 is 3 ft. wide, a solid mass of ore, worth 8 tons per fm., and the 40, east of western shaft, 110 fms. from the winze 4 tons, or 40*l.*, per fm.: and the 50, west of engine-shaft, 4 tons. The dealers are not judges of mines of merit like South Caradon, East Caradon, Marke Valley, or East Carn Brea, and are so accustomed to dross that they can scarcely believe in the existence of fine gold. One feature of importance is also lost sight of—that mines like East Caradon and East Carn Brea are not discovered every day, and when found are of slow growth. In such mines shares are necessarily limited in supply from the continued absorption by the public; and while money continues so abundant, and the requirements of trade unrestricted, it is not unreasonable to expect that increased attention from the public will be directed to mines like those under notice, which are certainly entitled to the support of "investments." The importance of the subject to your numerous subscribers is my apology for troubling you with this letter.

GEORGE BATTEN.

5, Cowper's-court, Cornhill, March 21.

LELANT CONSOLS MINE.

SIR,—In last week's Journal "Inquirer" asks that someone would enlighten him respecting this mine. As Purser, I beg to inform him that either myself or the agent of the mine will afford him any information in our power. If he is an adventurer, he must know that about three weeks since a full report accompanied the statement of accounts. I have had the mine inspected by two respectable mine agents from Devon, and next week I will forward a report for insertion in the Journal of the 29th inst.

WILLIAM RICHARDS.

17, Regent's-terrace, Penzance.

LELANT CONSOLS.

SIR,—I am glad to see by an enquiry in last week's Journal that one of the old holders in Lelant Consols is alive, and has a distinct recollection of his proprietorship. An enquiry by one of these shareholders is almost as unusual as a cock's crowing at night, the rule in this old fogey concern being that each one wakes up at the end of four months to read a good report (the only good thing which has yet come out of the mine); to add another call, of course, to the 30,000*l.* or so already gone in the mass of destruction; to recollect, drowsily, that half the shares are held in Cornwall, and to go to sleep again, unbroken by any disturbing agent's report in the Journal till the four-months' meeting again comes round, with its attendant circumstances above narrated. Seriously, however, it seems to me that it would be for their own great advantage that the great body of the non-Cornish adventurers devoted some attention to the mine. I do not speak of the old mine, in which, starting with the idea that there *must* be tin, this notion doggedly persisted in to the last, in the face of every counter evidence afforded by stratum, and is still, or was very lately, persisted in, at a considerable loss to the ultimate interests of the new concern. It is only of advantage now to look at the fine shaft, and, supposing the shareholders able still to pay the small additional expense required to prove the remaining portion of the level in the old mine remunerative to the entire satisfaction of those interested, I purpose making a remark or two on the present workings. These are now down to the 35 fm. level, a depth at which no mine in the district has proved profitably productive. Neither is Lelant Consols; and under these circumstances, it is proposed to run a speculative cross-cut from the fine to intersect two lodes, 25 and 40 fms. distant respectively, because these lodes produce little tin at the surface. To reach the first of these and to sink the shaft 10 fms. more it is expected, occupy six months. Now, this is surely folly. Why not devote one energy to push the mine down to the depth generally profitable in the district, and then when the concern pays its own expenses, let cross-cuts be run at deeper levels to prove the lodes referred to, and let them be worked if they are found rich in depth. It is absurd to add to the working cost at present, when the mine is not paying its way, by going on a mere supposition, which can be better tested again, and which, even at best, cannot be expected to do much at so shallow a level. It is by such ill-considered expenditure that many mines are impoverished at their onset, and become a drug when the shareholders are unable to support, and, being obliged to sell at any sacrifice, the legitimate profits fall into other hands. Why should there not be a periodical report from the agent to the Journal of what is doing?

SHAREHOLDER.

March 11.

BRYNTAIL LEAD MINING COMPANY.

SIR,—The paucity of attendance of the adventurers at the periodical meetings of mining companies is much to be lamented, and my experience has proved it to be particularly observant in the case of this adventure. The five members of the committee of management, the secretary, and about three other adventurers, have, during the twelve months, formed the meetings at which the calls have been made and other business transacted. It is true that, owing to the large holdings of three members of the committee and the secretary, about one-third of the 2000 shares may be said to have been represented; but, in the present hopeless state of the adventure, when the shares are literally a drug in the market, I venture to request you to insert this letter, in the hope of obtaining a more numerous attendance on Thursday next, the 27th inst., when the propriety of abandoning the adventure, at least in regard to the hitherto unsuccessful working of the *western* portion of the sett, will probably be discussed.

JOHN S. LAYCOCK.

4, Sandfield-terrace, Lewisham, S.E., March 20.

A LIVING FROG FOUND IN COAL.—The following is an extract from a letter received on March 12, by Mr. John Russell, from the manager of his Tyr Nicholas Colliery, Cwm Tylery, near Newport:—"Our men struck the heading in the rock vein coal yesterday (March 10), in a fall of coal, in the face of the heading, found, in a hole in the pricking, in the top of the coal, and in the 9-in. bed of coal, a live frog. The hole was not more than 3¼ in. in diameter, and this found in the soft holing. There is a space hollow over the coal where it was found. It began moving about as soon as it was released, but seems larger and more lively to-day. It is kept shut in clay, to exclude the air from it. Now this is 200 yards below the surface; where this little thing was found, and I do not suppose any one can have an idea how long it must have been there. I intend having it kept for you when you return.—L. W. REES." Another letter, written on March 11, says—"I have told Alfred Williams to mind and secure the piece of coal that was over the frog, but the frog was lying in the holing between the top coal and the 9 in. lift. As you say about the Exhibition as a place to show him, if he was put in a glass case and put upon our coal, being alive would make it more attractive still. Will you please enquire if it is best kept in clay from the air, or exposed to the air? As I am writing I have this moment (2·10 P.M.) been and looked at him—he is as smart as can be. Mr. Russell informs us that he is going to send to the Great Exhibition a block of coal between 7 and 8 ft. thick, selecting the piece in which the frog was found, the *locus in quo* being exactly in the centre, and the block will be so cut out that the frog and its strange domicile will be clearly shown in front. Among all the strange stories of toads and frogs found in stone, this one is surrounded by circumstances which preclude the possibility of mistake or trickery. Here we have a clever practical man, a manager of a coal pit, seeing with his own eyes what he describes in a letter upon business matters to his employer, a well-known gentleman of superior intelligence and considerable experience. It is also noticeable that instead of dying in a very short space after coming in free contact with the air, as is usually stated to have been the case in strange "finds" of this sort, the Tyr Pit frog survived, at all events, the remainder of March 11, and until Tuesday, when Mr. Rees wrote to Mr. Russell, and long enough for its finders to devise some means of keeping it alive. The plan hit upon—the providing for it a clay-house—was probably the best that could be

been hit upon, and is good evidence not only of the intelligence of the finders, but of their desire to prosecute an interesting enquiry. Mr. John Russell would feel glad if this narrative should so far interest some of our readers as to induce them to forward particulars as to the best method of preservation which could be pursued, as he is especially anxious to present the interesting stranger in a living state to the visitors of the Great Exhibition. We need hardly add that any communication would be readily inserted in the *Mining Journal*.

FOREIGN MINES.

ALTEN AND QUÆNANGEN MINES.—Estimated produce for Jan.:—

Mines.	Ore.	Per cent.	Copper.
Quænangen ..... Tons	35	9	3·150
Kaipas	20	5	1·000
Old Mine	134	4½	6·030
United Mines	5	6	0·300
Michell's	3	5	0·150
Thomas's	3	7	0·210
Total ..... Tons	200		10·840

Mining Report from 5th to 19th Feb.

QUÆNANGEN.—Lode E: The prospects here have not materially altered since our last. Meeting no improvement in the stopes below the 25, we have decided on suspending them, especially as the working expenses at that depth are rather heavy. The lode continued large, chiefly composed of a hard ferruginous quartz, with yellow ore in a minute form dispersed throughout, but too little to pay. Our principal operation in this part now is the extension of the 20 cross-cut, south of Cole's shaft, to intersect the south part of the lode, which has been, and still is, yielding remunerative returns in the workings above. In the 15 the lode turns out about 1⅛ ton of ore per fathom. The lode has been more variable in size, and smaller than before in Saxe's shaft and the adjoining stope, but in one place it has much widened out in the last few days, with a good intermixture of ore. In the stope further east the lode yields about 1½ ton of ore per fm. We have put a new roof stope in the shallow adit, about 20 fms. east of Saxe's shaft, where the lode is 3¼ ft. wide, worth 3 tons of ore per fm. The pitches on this lode are, collectively, working tolerably well, and we expect remunerative results. G lode still shows favourable indications in the east end of the sink, and yields rather more ore than before. The result for the past two months is not so satisfactory as could be desired, but, as before stated, part of it arises from the loss of time during the severe weather in December and January month. The reindeer have arrived at last, and we purpose starting this evening or to-morrow.

KAIPAS.—In the 10, north-west, the lode is 2½ ft. wide, of rather an improved character, yielding about 2½ tons of ore per fm. We have began to work against the above from an old stope further west, which is needed for ventilation; it will also greatly facilitate our operations when effected. We are extending the 30 easterly for the purpose of coming under some promising branches, formerly wrought in the 20; about 8 fms. will bring us under the point. The stopes on the heavy spar lode turn out about 1¼ ton of ore per fm. There is still about 3 fms. of water in the stopes.

OLD MINE.—Pederson's rise is up 3 fms. above the stopes; the lode is about the same as before, yielding 3 tons of ore per fm., with a promising appearance. In the working southerly the lode is 6 ft. wide, with irregular masses of ore intermixed, worth about 3½ tons per fm. The foot stope is yielding about 3¼ tons per fm., where the lode looks well. In the foot stope, north of the rise, the lode is 7 ft. wide, composed chiefly of quartz, worth about 3 tons of ore per fathom, the quality of which is rather mundicky. The 10 north continues poor, where the lode is 7 ft. wide, composed of a hard quartz. We have this week removed the men to open on a promising point further north, where we purpose sinking a winze, if the prospects warrant it. In Bergmester's stope the lode is from 7 to 8 ft. wide, yielding about 2½ tons of ore per fm. The indications here continue encouraging, and we fully expect meeting good deposits of ore in the large extent of ground ahead. The level from the 10 fm. level roof stope progresses favourably, and during the past fortnight has turned out some good saving work. The roof stope further south continues to look favourable, where the lode is 6 ft. wide, worth from 4½ to 5 tons of ore per fm. In the 10 south the lode continues to look kindly, being 2 ft. wide, worth 3½ tons of ore per fm. The ground about it is very loose, and requires to be closely timbered. The ground and lode are unusually hard in the midway level south, and at present not yielding much ore to value. The cross-cut from the railroad is in about 11¾ fms.—ground still favourable for progress, and of the same character. In Carr's adit the stratum is becoming more jointy, with water issuing freely in places, which we regard as favourable signs. There is no new feature calling for remark at the small concerns, where the operations are on a limited scale, the results are, however, remunerative.—CHARLES TRELEASE.

COPIAPO.—Checo: Estimated produce to January 31:—

	Quantity.	Ley.	Price.	Value.
First class dark ore ..... Qtls.	664	40	$4·50	$3888·00
Second class ditto	704	17	11¼	990·00
Third class ditto	32	15	9½	37·00
Second class yellow	128	15	10½	164·00
Second class green	192	15	9¼	222·00
Total ..... Qtls.	1920			$5301·00

The north lode has become poor; this we shall stop. In the 40 the lode in the chiffon is much the same as last reported. In the 40 end, driving west, the lode is about 2 feet wide, still producing a little ore, but not to value. In the 40 cross-cut the ground is very hard for driving. In the 50 the branch is producing some very good stones of ore. The western sett is still very prosperous.—G. MATTHEWS.

ST. JOHN DEL REY.—(*Telegram.*)—Produce for January, 48,692 oits. Ditto for ditto, 9417*l.*; profit for ditto, 8946*l.* Produce, 10 days of Feb., 13,555 oits.

CLARENDON CONSOLS.—J. Martin, Feb. 21: Stamford Hill Mine: The north part of the lode at the 94, south-west of cross-cut, is 18 in. wide—poor. The lode in the winze sinking below the 82, on north lode, is 2 ft. wide, composed of flookan and carbonate of lime, with mundic; the winze is now holed to the 94. We have taken the men from the 94 south-west, and put them to commence the sinking below the 94, which we hope to push on with all possible speed. The men have a little more ground to cut down at the bottom of the winze; but as soon as this is done I shall put them to stope in the bottom of the 82. The ground in the 82 cross-cut is without any alteration; we have suspended this for the present, as we want to drive in the 82 south-west, to the north lode, to ventilate the 70 fm. level. This we are obliged to do, as the engine cannot draw away the stuff from all the places. In the 70 fm. level south west we have kindly looking lode. We have cut in it to date 2½ ft., and find it composed of ore, spar, and carbonate of lime, similar to what we had at the 46. The 70 is 24 fms. behind the 46 and 34 fms. deeper. The water is coming away very freely. It has drained the end completely dry. I think the lode must be holding from the 46 to the 70, as the water is coming away, and the part we have already seen at the 70 is more orey than at the 46. I said in my last that we had put the men to rise in the back of the 46, where the lode is 6 ft. wide, and worth ¼ ton per fathom. We intend rising a little more. If the lode does not improve we shall put these men to sink a winze in the bottom of this level, and, after driving the 70 a few fathoms further, and rising in the back of this level, will ventilate both the 46 and 70 fm. levels. The engine and pumps are working well.

Extract from a letter from Capt. Martin to Mr. J. H. Koch, secretary:—I have yours of the 6th inst., and have broken about 24 tons of ore, which is 1½ ton per fathom for the head of Jan. 16, and beg to say we have cut in north at the 82, and have driven and sunk 16 fms. 4 ft., and have broken about 24 tons of ore, which is 1½ ton per fathom for every fathom taken away. To the bottom of this level nothing has been done as yet. We are sinking a winze a few fathoms east of where we had the ore. So soon as this is holed we can stope it, and expect to raise from it several tons of good ore. We have had two small explosions of gas in the mine at the 82 fm. level, near the shaft, the first of which James Richards, and the second with William Jose. It put their candles out and burnt their faces—Jose's the worst of the two. After this the men could not work at the bottom of the mine for a day or two. I went down, and found at the shaft-bottom noxious gas, the same as we had in the Pontgibaud Mine. At the time we altered the framework we had to take out a great deal of old wood and put in new, the old being put in the level till the work was done. By what I saw, this wood must have heated, and the gas found its way to the bottom of the shaft. I at once ordered the old wood to be blown up to surface; since then the air has been better, and no gas seen.

VICTOR EMANUEL.—March 15: Miggiandone: We have to report an improvement in the new stopes in Clinton's lode, where the lode is at present worth one of copper ore per fm. The lode in the stopes in Thompson's level is worth 1¼ ton of copper ore per fm. The ore ready for market, about 50 tons, has not been sent away yet, because there is not enough water in the pool for the barges.—Baveno: Since our last report we have drained 8 metres more of the old workings, and we are rapidly approaching the bottom of the mine. The lode, which has now become visible, is rich in both sides of the old shaft or winze, with a solid leader of copper ore, worth about 60*l.* per fm.

NEW GRAND DUCHY OF BADEN.—S. Richards: At Schindler engine-shaft, in the 54 north, the lode is 10 in. wide, containing some ore of good quality, but not enough so value. The stopes in the back of this level are producing, on the average, 1 ton per fm. In the same level, driving south by the side of the lode, there is no alteration to notice. We are stripping down 2 ft. of the orey part of the lode, behind this end which is worth 9*l.* per fm. In the 44 north, the leader part of the lode is 3 ft. wide, consisting of quartz, flookan, mundic, and ore, worth 5*l.* per fm. In the same level south, the lode in the past week is improved, being now 3½ ft. wide, worth 15*l.* per fm. The stopes in the back of this level are producing 6*l.* per fm. The stopes in the back of the shaft, north of the shaft, are producing on the average 5*l.* per fm. In the 34 north, in driving the old level referred to in my last report, we find the lode is worked deeper as we proceed northward. We have cleared 13 ft. in length, secured the place, which is 6 feet wide, and have placed the men to take away the high ground, and stope as soon as our level, and make good the same. The lode the old bottoms is on the average about 2½ ft. wide, containing some good dredge work, worth about 4*l.* per fm. In the same level south a foot of the lode is cut into, which has produced good stones of ore.

CENTRAL AMERICAN.—Jan. 25: Although the mines have suffered somewhat from a scarcity of native labour during the present month, we are, nevertheless, glad to inform you that the different points of operation have progressed in a manner most satisfactory.—San Pantaleon: In Cornubia engine-shaft the lode is 2 feet wide, of decomposed porphyry and iron pyrites, mixed with a little blende and sliver ore, with a very promising appearance. In Taylor's engine-shaft the lode continues small and unproductive, and its inclination is so great towards the south that doubts are entertained of our being able to follow it with the shaft.—San Hilario: The lode in the end, or 10 fm. level under Dolores: The level, driving east from No. 2 cross-course, is now 6 feet wide, producing about 3 cwts. of silver ore per fathom, of good quality, with indications of soon becoming more productive. Nine varas have been sunk in Montarolo's winze, sinking from this level 25 fathoms east from Cornubia shaft by six men, at $8 per vara. The lode in this winze is 20 inches wide, composed of quartz and gossan, but without ore to value. In the western winze (Lemu's), sinking from this level, 7 varas have been sunk by six men, at $8 per vara. Here the lode is 2 feet wide, impregnated with mundic, producing 4 cwts. of rich silver ore per fathom, and the entire vein presents a most promising appearance. The lode in No. 1 stope, from the back of this level, is 20 inches wide, yielding rich silver ore per fathom. In No. 2 cross-course, is 9 inches wide, and worth from 4 to 5 cwts. of rich silver ore per fathom. In No. 2 stope, from the back of the same level, the lode is 15 inches wide, composed of flookan and calcareous spar, and although at present it is rather poor, its indications are such as to justify our stating that it will soon become productive. The lode in No. 3 stope, from the back of the same level, and adjoining the above mentioned, is 18 inches wide, and worth from 8 to 9 cwts. of rich silver ore per fathom.—San Ricardo, or the 20 fm. level under Dolores: The eastern level, extending from Cornubia engine-shaft, has been driven by six men, 16 varas at $8¼ per fathom. The lode at this point is some 18 or 20 inches wide—unproductive. The same level, driving west from Cornubia engine-shaft, has been driven by six men, 12¾ varas at $8 per vara. Here the lode is 2 ft. wide, and at present worth from 1 ton to 25 cwts. of good quality silver ore per fathom.—San Alfonso Deep Adit: The end driving east in a direct course by lines towards the shafts has been advanced by six men 4⅛ varas at $24 per vara.—San Antonio Mine: Ellery's shaft has been sunk by nine men, 4 varas at $22 per vara. In the bottom of this pozo the lode is 5 feet wide, chiefly composed of a rich-looking gossan, and although it is at present rather poor its indications are such that it warrants very shortly a change for the better. This shaft is now sunk to within a few feet of the old adit level (San Luis), so that a communication will be formed here in the course of the coming week. The old adit level (San Luis) has been driven by six men, 6½ varas at $8½ per vara. The lode at this point is from 10 in. to 1 ft. wide, composed of flookan and gossan, mixed with a little blende and silver ore, showing some good indications of becoming more remunerative. The winze sinking from this level (San Luis) has been sunk by four men, 4½ varas at $9 per vara. Here the continued large and productive for about 1 vara of the above distance, when they country rock become hard and the lode small. In the bottom of the winze a change is observable for the better, where the lode is again opening and showing some rich-looking gossan, mixed with a little carbonate of lead, so we may expect after a vara or so more has been sunk there will be a good lode in this pozo.

Feb. 1.—The production of San Pantaleon has been rather better than we thought at the beginning of the month, being 68 tons 6 cwts. of ore, averaging 150 ozs. of silver per ton. The western winze (Lemu's) has very much improved since the 25th ult., but the San Ricardo level west does not look so. The greatest possible exertions are made to cut the lode in the San Ricardo level, east of No. 2 cross-course, to come under the rich ground in the level above.—San Antonio: The winze in San Luis level has much improved in the last few days; I had some beautiful specimens of gossan with native silver brought to me, which looks encouraging. The shaft is not yet communicated with the level, and we cannot begin stoping until the shaft is ready for drawing with the whim. The returns from this mine have been small this month on account of the winze having become poor. The produce was 4¾ tons, assaying 52 ozs. of silver per ton; 257 bags (17 tons) of ore have been sent away to the coast for transmission to England. Our last remittance of 18 bars of silver to the Mint realised $15,075, of which I have taken $10,000 for this place. Note.—The directors have received by this packet a remittance of 14,000*l.* in bills, and 118 bags of silver ore.

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

SOUTH WHEAL FRANCES.—Under date March 15, Capts. Pascoe, Prisk, and Pope, report—"We have just intersected the new north part by the 54 cross-cut (north of Pascoe's), and, from the little we can see, we judge it to be 18 in. wide, and producing 3 tons of copper ore per fathom."

EAST CARN BREA.—A great deal has been stated about this mine, and by parties that know little or nothing about legitimate mining. If I am correctly informed, the last sale of ore for the two months will only just cover the cost. Surely this cannot be the case, and the mine selling after the rate of 90,000*l.*? The old saying is, "When the shares are high the public will buy," and I suppose such is the case with this mine. But my advice is, "be careful," otherwise the shares will be left on hand, and by the end of the year be down to one-half the present price. No doubt many can remember North and West Bassets being 40*l.*, and how the agent was deceived in the value of the reserves: let us hope that such will not be the case in East Carn Brea. I also hear that no one is allowed to inspect the mine. Surely there must be some motive in this.

At EAST BEAM (Roche, St. Austell), there are most encouraging indications of having a fine mine—and being the same lodes as in the celebrated old tin mine "Great Beam" (the hedge only dividing the two setts), the workings are watched with considerable interest.

At WEST WHEAL DAMSEL a great improvement has taken place in Tremayne's lode; the 90 west is worth 6 tons of ore per fm. A stope in the 80 is also worth 6 tons of ore per fm; and the 70 west 5 tons of ore per fm. The balance in favour of the mine at the meeting on Monday last was 533*l.* This mine is opening out beautifully, and will be soon in the Dividend List.

WEST CONDURROW.—Capt. Nancarrow states the lode in the 24, under the elvan, for the last 3 fms. to be worth 10*l.* to 12*l.* per fm.—a fine looking lode, and will take five or six weeks to reach the rich bunch of ore going down in the winze from the level above. The lode in the winze in the bottom of the 12, on the elvan, is worth fully 70*l.* per fm.; this lode was driven through (in the 12) 10 fms. The present end is not so good, but an important discovery is expected as they near the cross-course; the stopes in the back of the 12 are worth 10*l.* per fm. Captains Bennett and Jewell say they are well satisfied with the prospects of the mine. A parcel of tinstuff was sold on the 18th instant for 123*l.* 10s.; another parcel, of about 150*l.*, will be sold next week. None of the rich ore from the recent discovery, where it is worth from 60*l.* to 80*l.* per fathom, has yet been sampled. The mine is paying costs, and there are several interesting points coming off. Altogether a good speculation.

NORTH DEVON SILVER-LEAD MINE.—Capt. John Blaney, the manager of the mine, reports that it is looking better than he has ever before seen it. The main lode is now producing ore in two places very near the surface. He is anxious to extend additional levels east, as he thinks their prospects are favourable there also.

LADY BERTHA MINE has considerably improved during the past week. The lode in the 30 has come in productive; it is 4 to 5 ft. wide, and there is a branch on the south side of it, worth at present 2 tons of ore to the fathom, but with every appearance of an improvement; this level, it must be remembered, is nearly 60 fms. from surface, and the end is in whole ground, there being no level above it extended so far east; should this continue to improve the mine will rapidly open out to be a most valuable property, and will amply repay the shareholders for their perseverance and energy in developing it.

WHEAL EMILY HENRIETTA.—This mine is situate in the parish of Illogan, and is held under a lease from J. F. Basset for 21 years, at 1-15th dues. The sett is an extensive one, being 500 fms. in width, and 400 fms. in length, and is contiguous to some of the best mines in the district, having West Seton and Wheal Seton to the west, and North Wheal Crofty to the south. There are several lodes traversing its entire length. The one on which the present operations are being carried on was worked some 80 or 100 years since by the aid of a water-wheel, and was sunk 32 fms. below the adit, or about 47 fms. from surface, and the mine was, no doubt, suspended at that time from want of sufficient power to drain the water. The present company have erected a powerful steam-engine, and are prosecuting the mine with great vigour. About 4608*l.* have been already expended. The shares are 1024ths, and the present price from 5*l.* 15s. to 6*l.* Capt. Daw, of Carn Brea and Great South Tolgus, is the manager.

CORNUBIA.—Capt. Pascoe, of Penhale Moor, has examined this mine for a shareholder, and reported highly of its position and prospects. A good sale of tin is expected this month.

LADY BERTHA.—Capt. Harpur informs me that the 30 east is looking better; there is a leader of ore in the south of the lode several inches wide, very good indeed. This is very important, clearly showing that the ore is dipping eastwards towards the new shaft and great cross-course.

WHEAL SYDNEY (Plympton).—The committee, in pursuance of the resolutions of the last general meeting, authorising the immediate application of adequate steam-power for developing the mine, have purchased a 56-in. cylinder pumping-engine on advantageous terms, which is being erected under the superintendence of Mr. Wm. Matthews, of Tavistock. The foundation stone of the engine-house was laid this day (March 20) by Capt. Strode, of Newnham Park, the lessor of the sett, who sent a liberal supply of the good things of this life for the consumption of the miners on the occasion. This undertaking promises ere long to remunerate the adventurers and all concerned for their spirited and persevering enterprise, and will, doubtless, prove to be a permanent benefit to the neighbourhood. The adventurers and others present were gratified at the sight of the large heaps of ore at surface, and by the explanations given by the agents of the size and quality of the lode, and the prospects of the mine.

THE GREAT DAREN MINE (Limited).—The dressing of the ore is going on fast; we expect to get a parcel of 20 tons of silver-lead ore ready this month, and a few tons of copper ore. The ore ground on the south side of Oliver's level yields well, and extends along the side into untried ground, bidding fair to open up an extensive field of ore ground; in fact, a mine in itself. The lode discovered on the north side of the incline yields copper and lead, but is not rich. The ore bargains are generally looking very well, and the raisings will leave a good profit or balance over the cost of the mine.

CAEGYNON.—The wheel is being erected on this mine as rapidly as possible. There is every appearance that when this mine is drained of water the sales of ore will be large and regular. The lode is yielding much ore at the surface, and in the 30 it is known that there is a large quantity of ore already broken.

ABERNANT.—The water has increased so much as to cause the suspension of the engine-shaft by hand labour. The men are breaking a good supply of ore from the stopes, and the necessary machinery is being contracted for.

WHEAL PRUDENCE.—The Messrs. Thomas, of Penzance, have been very successful in forming this company; and we are informed that several wealthy and influential persons have taken a large number of shares. The Messrs. Thomas have wisely decided on starting with an adequate capital, so that the development of the mine will not be cramped for want of funds, and will be free from many casualties attending the working of Cornish mines. The property is considered a very valuable one; and, from the ore already discovered, there is little doubt of much larger discoveries being made as soon as the water is pumped out. Captain Vivian, of Camborne, is to be the manager, and Messrs. Michell and Jenkin the engineers.

TROEDRHIW CEIR.—There is a good course of lead in Spargo's adit, left in the sides by the old workmen, which we are breaking down at a good profit, and from the character of the lode this is likely to make a good mine.

WEST SILVER BANK.—The lode in bottom of the engine-shaft, which is sinking with very good dispatch, has undergone a very favourable change in the last few days, and we may shortly expect to hear that the shaft has been sunk into a good course of ore again, as it is approaching the dip of the great course of ore from the Silver Bank Mine. I am quite satisfied we shall soon have a good run of ore ground in this shaft, and that it will lay open a very valuable mine.

MERCHANTS' MINES—CASE OF LIBEL.—At the Cornwall Spring Assizes Messrs. Harvey and Co., of Hayle, complained of a libel published by Mr. R. Tredinnick, of London. The libel of which Messrs. Harvey complain is this:—Mr. Tredinnick writes that Great Vor sold tin for 3937*l.* 7s. 9d. "This mine has mulcted the shareholders of 236,320*l.* Great Busy, 78,000*l.*; returns, 3199*l.* 13s. 1d. of tin, in addition to copper. Great Alfred, over 70,000*l.* subscribed, and no good results. Grenville, over 42,500*l.* Unity Consols, 63,750*l.*: thus we have a sum absorbed of over 490,500*l.* in five mines of market notoriety, all of which having been formerly abandoned should never have been again reworked, and all of which should, upon the earliest possible opportunity, again be abandoned as worthless, for neither will probably every pay a dividend from actual profits, and were concocted and foisted upon the public solely by the merchants of Hayle, with reckless speculators in town, who alone have or ever will be advantaged through their existence as public companies. It is such conduct as has been practised in the creation of these companies that brings odium upon Cornish mining, which not only exhausts the resources, but disgusts capitalists, to the prejudice of the honest enterprise, and entail bankruptcy and ruin on all who unhappily embark." And Mr. Tredinnick having publicly advertised, to stay an action, that the remarks did not apply to to Messrs. Sandys, Vivian, and Co., it was urged that it must, therefore, apply to Messrs. Harvey, there being no other merchants in business at Hayle. On behalf of Mr. Tredennick it was stated that he had found that the charge which he had made was incorrect, and that he was willing to retract it. A verdict was then found for Messrs. Harvey with costs; damages 40*s.* On behalf of Messrs. Harvey it was stated that their object was not to obtain heavy damages, but to place their character in a clear and proper light before the public.

MINE ACCIDENTS.—At Wheal Ludcott, Caleb Chapman, 25, leaving a wife and two children, was killed by falling out of a rope whilst being drawn from the winze in the 38 fathom level, which he had been examining after a blast. Verdict, "Accidental Death."—At Wheal Buller, Sampson Uren, 42, was killed by premature explosion. Two holes had been tamped and one fired; in going in to fire the second it exploded, and Uren died before brought to plat. Verdict, "Accidental Death."

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—S. Thomas, T. Hosking, March 19: The main lode in the 160, east of Davey's engine-shaft, is large and of a more promising character for ore than for some time past. In the said level west we are driving on the north part of the lode, which is composed of iron, spar, and capel, with spots of ore and mundic. The 150 east, on the main lode, is worth 10*l.* per fathom, and the ground is getting easier for driving. The rise in the back of the said level is worth 6*l.* per fathom. Taylor's winze, sinking under the 140, is worth 8*l.* per fm. Richards's winze, on the north lode, in the 140, we have suspended the sinking for the present, the water being too quick, and set the said pare a pitch to work from the ends of the said winze, at 7s. in 1*l.* The 140, east from cross-cut, on the north lode, is unproductive. The lode in the 100, west of the flookan, is composed of killas and spar, mixed with mundic. In the 80 fm. level, west of Field's shaft, in driving south, the end is composed of elvan, thickly impregnated with mundis. Our tributers are working regular, and calculate on getting wages.

BEDFORD CONSOLS.—J. Mitchell, March 20: In the middle adit level, on the north lode, we have just intersected a cross-course, about 4 or 5 in. wide, which contains a little lead, consequently the lode is not so large as when last reported on; it still consists of capel, spar, strong mundic, and copper ore, but not a sufficient quantity of the latter to value; I hope to see the lode open out again as we get east of the cross-course.

BRONFLOYD UNITED.—J. Lester, March 20: I am glad to inform you that the part of the lode driving upon in the 40 has much improved, and will now yield 15 cwts. of fine ore per fathom; indeed, I have broken some splendid work from the end to-day. The winze is without alteration. I did expect to have had it holed ere this, but there is still two or three days' work to do. I shall be very glad when it is through, for the air is bad, and the men cannot make the progress one would wish for.

BRYNAMBOR.—E. Williams, March 18: The cross-cut in the 20 east has been driven north 7 ft., in a hard bed of ground; driving at 6*l.* per fm., stent 2 fms.; there is a large stream of water coming through, and cubes of lead ore in every joint of the lode. I have no doubt we shall reach the north wall of the lode within the time specified by the manager. The stopes east of the winze are looking well, and yielding large quantities of lead ore. I cannot say at present how much it will yield per fm., but I shall be able to do so in a few days. The ground is very hard by the south wall, and several branches of ore to be seen all through the lode, which is about 14 feet wide at this point. I am pushing on as fast as possible with dressing, and in a fortnight's time I shall have ready a parcel of clean ore. The carpenter has got all the timber ready to make the trunks, buddies, &c., and also the planks are ready on the mine to erect the sheds over the same. We have now at work six men driving the cross-cut in the 20 east, two men stoping east of winze; three men drawing stuff; three men, one boy, and three girls on the dressing-floors; one carpenter, one sawer, and one smith.

BRYN GWIOG.—March 18: We have commenced working in the 75 fm. level, and in the course of the coming week intend to begin sinking the engine-shaft again below this level. We are bringing back the water from the old workings through our 66; this has taken us longer to do than we expected, as we have had to stope the bottom of the old level so that the water might run back: we have been back through and secured above 30 fms. of it, and in this distance there are four winzes sunk on the lode, and most of it, to all appearances, worked away for lead. Several arches are to be seen, containing good leaders of ore, and the surrounding rock, or bearing measures as they are called, are enough to be desired for the produce of lead ore; it is the general belief that these winzes are made use of to work down a run of ore, and if this is the case, and there is every evidence of its being true, this is a run of ore entirely different to any before seen in our part of the mine; we cannot also but think there may be other runs of ore further west, and as these dip east in depth a casual glance will show the admirable situation of our present engine-shaft for working these runs of ore. Provided there is no quantity of stuff to clear from the bottom of the old workings, we shall soon see what ore ground there is there, as we are all but ready to draw out the water for that purpose. In clearing the old level we have cleared the stuff for dressing which came down from the roof. No. 1 stope, in back of the 66, is looking very well, present value from 5 to 6 tons per fm. No. 2 stope, behind ditto, will produce from 2 to 3 tons per fm. No. 3 stope, east of No. 2 sump, will produce from 5 to 6 tons per fm.; should these stopes continue of the same value we shall soon have a good parcel of ore for market, and if the runs of ore in the old mine turn out to be productive we may look forward for an extensive and productive mine; it was never in a better state of working than it is now, and the prospects for the future never more encouraging.

CAMBORNE CONSOLS.—Wm. Roberts, March 18: In the 50, west of the cross-cut from Wheal Gons shaft, the lode is 1½ ft. wide, composed of spar, mundic, and occasional stones of ore. In the 50, driving east, the lode is nearly 1 ft. wide, producing a little ore, and is likely to improve. There is nothing new in the cross-cuts. In other parts there is no alteration since last reported.

CARADON CONSOLS.—William Rich, March 18: We have met with a small cross-course in driving the 54 west, on Menadue, which has disordered the lode for the time; the end is letting out more water, and I think it will improve after we get into settled ground. The 54 east is taking a considerable turn northwards; I look upon this as a favourable indication; we are now going forth by the side of the lode, and hope to take it down to report on next week. Owing to an accident to the balance-bob, and stopping to repair this, and doing other necessary work to the engine, the driving of the bottom levels has been retarded during the past week; they are, however, now in full course of working, and progressing satisfactorily. The lode at the 68 east maintains its kindly character. There is no other change to notice.

CARDIGAN CONSOLS.—J. Sanders, March 17: The adit east, on copper lode, has improved during the past week; the end at present being worth 20*l.* per fm. for copper, and likely for further improvement; this is the best piece of ground that has been opened by the present company, and I believe, when properly laid open, will return a good profit. In order to lay open the ground, the shaft should be sunk, and levels driven back under the copper, where I am of opinion a good deposit of lead will be met with at a deeper level. I believe with an outlay of 500*l.* or 600*l.* this part of the mine will be brought into a profitable state. The mine, according to the present prospects, is worth a great deal more than it was when the present company commenced to work it, and I would recommend the shaft to be sunk, and the ground laid open at once.

CARN CAMBORNE.—Wm. Bishop, jun., March 18: There is no change to notice in any of the tutwork bargains throughout the mine since last report. We shall sample to-morrow about 30 tons of copper ore.

CENTRAL MINERA.—W. Davies, March 20: The great north cross-cut has become harder for driving, and strongly intermixed with ribs of spar; we are 27 yards in advance of the shaft, and according to the late inspector's report we have 23 yards yet to drive to intersect the vein. The level west from Pugh's shaft is speedy for driving, and continues to produce a little lead. The rise in back of the 55, east of Edgworth's shaft, is still hard and unproductive for lead. The tribute pitch is improved a little this week.

CLARA UNITED.—Jas. Lester, March 19: We have but little alteration to notice since my last. The lode in the winze sinking east of boundary shaft has, if anything, improved, and the ground is harder for sinking. The 32, driving east, is letting out more water, which looks favourable for an improvement in the lode at this point.

COLDCHARTON AND EAST BEDFORD.—J. T. Phillips, Feb. 25: I have made an examination of this ground, and find it is situated in the midst of the copper-bearing killas of the Tavistock district, surrounded by mines which have been and are very productive, the Bedford United main lode running through the estate near about the centre, with other parallel lodes north and south. In a quarry near the south-east boundary a caunter lode has been opened on, which will intersect the east and west lodes going west; this circumstance should not be lost sight of, as the richest branches of ore are generally found at these points. This estate will make a compact sett, about 300 fms. square, and I think the most desirable piece of mineral ground undeveloped in this district.

— John Phillips, Feb. 28: Agreeably with your request, I have carefully gone over the above ground, which is situated on the east of Bedford United Mines, in the parish of Tavistock. I have no hesitation in saying that the Bedford United Mines' productive lode, as well as others north and south of the same, traverse the whole length of the sett. Bedford United Mines have made large returns, and paid large amounts to the lord of the land, and the shareholders in all about 80,000*l.*; I can, therefore, say most frankly that Coldcharton is a most eligible piece of mining property, and heartily congratulate you on having obtained it on such favourable terms.

CROOKHAVEN.—W. Tonkin, March 13: The engine-shaft is sinking satisfactorily; we find no change in the ground—the same micaceous stone, congenial for copper. In the 40 cross-cut the ground is composed of the same compressed slaty killas, with an occasional small branch of quartz—as last reported. In the cross-cut at the western trial shaft we have not yet cut through the elvan; it is hard and slow to drive, having a favourable appearance, becoming more mixed with copper.

CUDDRA.—F. Puckey, E. Dunstan, March 20: In the 100, west of Tickel's shaft, the tin part of the lode is 3 ft. wide, containing some tin, but not sufficient to value. In the winze sinking below the 60, west of Walker's shaft, the lode is improved; it is now 3 ft. wide, and will yield 4 cwts. of tin per 100 sacks.—Walker's Shaft: During the past week the shaftmen have been engaged in casing and dividing the shaft from the 60 to the bottom of the perpendicular, for the purpose of bringing the steam-whim kibble to draw from that point. The lode in the shaft when last taken down was 4 ft. wide, and worth 4 cwts. of tin per 100 sacks.

CWMBRANE.—T. P. Thomas, March 19: The stopes in back of the 30, north of engine-shaft, are looking very well, one is producing about 2½ tons of lead per fm., and the other about 1¼ ton per fm. The stope in back of the 20, north of the engine-shaft, is also looking well, and producing 1½ ton of lead per fm. The stope south of the engine-shaft is producing 1¼ ton per fm. The cross-cut in the 20, driving east to intersect Red vein, is in favourable ground. The sink in bottom of the 10, on a branch, is looking well, producing 1 ton per fm. We have commenced crushing to-day, and hope soon to have a parcel of lead for sale.

DEVON NEW COPPER.—P. Hawke, March 19: In cross-cuting into the great north lode, to the west of shaft in the 88, at a distance of 34 feet north from shaft we have reached a very hollow porous floor of ground, precisely similar to that which overlays the leader in the 78; the water is issuing from this point with very great force, so much so that for several hours the engine was working at the rate of 12 strokes per minute. The 78 east is now thoroughly drained, and it is very satisfactory to discover that the main part of the leader gone down in bottom of the 78 is now about being reached (which we may expect even daily), which accounts for the water not subsiding earlier in the 78. We have desued a piece of the lode for several feet in length east in the 78, but have not yet been able to break it down; the indications at this point are extremely good, and I hope shortly to be able to report of an improvement. I am watching the progress and prospects of the mine with a great degree of interest.

DRAKE WALLS.—T. Gregory, March 18: The lode in the 102, east of Matthew's shaft, continues of the same value, 30*l.* per fm. for tin.

— T. Gregory, March 19: The lode in the 102, east of Matthew's shaft, maintains its value, and the ground appears to be changing for the better. In the 80, west of Betteley's shaft, we are taking down the main branch, which is becoming larger, and producing some good work for tin. Other parts without alteration.

DULTA.—J. Martyn, March 18: We are busily engaged in sinking a new engine-shaft, about 100 fms. east of the engine. We have cut a new lode in this shaft, about 8 ft. wide, all saving work for tin, and underlying north; a more promising lode I never saw. This shaft is intended to be sunk to the 25, close to the junction of six parallel lodes, and on the junction of the killas, where we have to-day found some splendid stones of tin, almost solid. We find the lode to improve in depth, but shall not be able to sink much deeper till we get the engine to work at this shaft, which will be in about a fortnight, when we shall make good returns of tin. I am certain that this mine is a first-rate speculation. The ground is easy, and the cost for timber moderate: we are paying 15*l.* per fm. for the new engine-shaft, and the men are getting fair wages.

DYFNGWM.—E. Davies, March 17: The Cyfartha level has been driven 7 fms. 2 ft. further, and intersected the Dyliffe and Dyfngwm lode; the remaining portion of this level, up to the Esgairgaled lode, will be driven quicker than we have hitherto done, as the ground has altered, and more men employed on it. During the last two months the engine-shaft has been sunk 1 fathom deeper, making it 82 fathoms, and at this depth we mean to cross-cut into the lode. During the frosty weather, when our wheel was stopped, the water got into the 70 and interrupted our workings, but 8 fathoms 2 feet of orey ground was stoped, and yielded from 15 to 20 cwts. to the fathom. In the 60 east 3 fms. 6 in. was risen, and 3 fathoms 3 feet stoped, which yielded 30 cwts. per fathom. The 60 west, 5 fms. 5 ft. east of the winze, has been driven and opened on a good bunch of ore; in another winze, below the level, 2 fms. 3 ft. 8 in. has been driven, and yielded 10 cwts. to the fathom. In the 50 east 1 fm. 2 ft. 6 in. has been driven, opening on a

fine lode, yielding excellent ore, about 30 cwts. to the fathom; in the backs 2 fms. 1 ft. 8 in. was risen, and 25 fms. 0 ft. 6 in. stoped, giving a produce of 1 to 3 tons per fm., and averaging 2 tons. Just opposite the engine-shaft 4 ft. 2 in. was crossed, but we did not discover any paying ground. The 40 east has been driven 5 fms. 2 ft. 6 in. further, the "much richer lode further ahead," mentioned in my last bi-monthly report, has been opened on, and turns out well, giving us from 1 to 2 tons per fathom. In the back of the 40 fm. level 1 fm. 3 ft. were raised, 1 fm. 0 ft. 3 in. extended on the stope, and 9 fms. 1 ft. 8 in. stoped, giving an average yield of 25 cwts. per fathom. The rise has met the winze sunk in the 32, thus ventilating both works. The 32 east has been driven 5 fms. 4 ft. along the lode, gradually improving as we proceeded, till we found it giving us 3½ tons per fathom; the lode is rather hard at present to drive, but continues very rich. In the bottom 1 fm. 0 ft. 9 in. of winze was sunk, 1 fm. 3 ft. 6 in. raised, and 1 fm. 0 ft. 4 in. stoped; the two latter works are preparing for the stopes in the backs, which are now being worked by eight men. The men we had clearing and timbering the 16 east have reached the forebreast, which, I am glad to say, is not quite in the orey ground, so that the entire lode is there whole ground up to the adit, and in one lode up to surface; I expect to find a very fine orey lode here as we proceed east. This is an important feature. I was not sure whether this 16 fms. might not have been driven on one of the lodes, but it has only been driven just through the barren ground. The drawing department has gone on well, bringing out a good lot of excellent stuff, altogether the richest I ever saw come out of the mine in any quantity. The weather has interrupted the dressing department, stopping the crushing-mill and washing department several days, and partially interfering with several others; nevertheless, we dressed and put into the bin 106 tons. We are now going on very well, and hope for a continuation of good weather. We are progressing with the new wheel-pit, and have met with a rocky solid foundation, enabling us also to extend our dressing-floors, which we sadly wanted.

EAGLEBROOK.—H. Tyack, March 20: In driving the 30, west of the engine-shaft, the lode in the present end is about 7 ft. wide, composed of barytes, carbonate of lime, white spar, hard clay-slate, with strong spots of lead, and letting out quantities of water. The lode in this place is very hard and troublesome for driving, consequently our progress is slow; in continuing this level a few fathoms further west we shall be under the orey ground seen in the bottom of the 20. In driving the 20 west of the engine-shaft the lode is 3 ft. wide, filled with mundic, blende, and stones of lead ore, but not sufficient of the latter to save for dressing; this level is advancing under the west hill, and continually gaining backs: we have every reason to expect good results soon. In the stope in back of this level, east and west of the winze, the lode is about 6 ft. wide, and contains good saving work for lead; we have not yet opened out sufficiently on it to ascertain its value. The cross-cut driving north in this level is now extended about 3 fms. 3 ft., and we have intersected one lode about 3 ft. wide, containing good stones of lead ore; we are pushing on this with all possible speed, hoping to intersect another lode. On surface we have a small force on the upper floors picking over the orey stuff and preparing the same for the crushing-mill. All the machinery is in good working order.

EAST BEAM.—J. Webb, March 15: I have just returned from this mine. I found the end of the cross-cut in the 20 in very soft ground, and the water breaking away so violently that the men were unable to work. I am glad to see this state of things, as it shows we have a large lode before us, but our progress is retarded. The miners say they had the same difficulty in crossing the ground at the Great Beam Mine, until they cut the lode. After much consideration I have decided to let the men open east on the branch or caunter lode we first had in the cross-cut; this may assist the drainage. We have a good party of practical men underground, and you may depend everything shall be done to accomplish the work, but we must have patience. All miners here say that there is no danger about having tin in this sort of ground, and my confidence is greater than ever. The engine is doing its work well.

— J. Webb, J. Webb, jun., March 20: We are continuing on the caunter lode, and making good progress—ground easy to drive; lode 3 feet wide, yielding good stamps' work; it is really a good lode of itself, and cheap for working. From its present bearing we ought to cut across the main one in less than 10 fms. We expect to drive 4 fms. a week, so in that case we shall not be much delayed. This will drain the ground as we proceed, and make the present south cross-cut again available. Every feature in the mine is most encouraging, and this junction, if the lode proves to be a caunter, is really the most desirable point to arrive at, for it was over here that the old tin streamers sunk the shaft on the back of the lode, which we reported on Nov. 28. Everything is in good order, and the engine working well.

EAST BUDNICK AND MOUNT.—W. H. Reynolds, March 18: In the 17 south the lode is large, and contains spots of lead. In the 26 west, on engine lode, the ground is rather better, and the lode yielding a little lead.

EAST CARN BREA.—T. Glanville, J. Scholar, March 15: Tutwork Setting:—The adit level, to drive east on the engine lode, by six men, at 3*l*. per fm. The 50 cross-cut to drive north, by six men, at 9*l*. per fm. The 50 cross-cut to drive south to cut the middle lode, east of the cross-course, by four men, at 3*l*. 10s. per fm. The 40, to drive east on the middle lode, by two men, at 3*l*. per fm. The 50, to drive east on the south lode, by four men, at 4*l*. 10s. per fm. The 50, to drive west on the south lode, by six men, at 4*l*. per fm. The 40, to drive east on the south lode, by six men, at 4*l*. 10s. per fm. The 26, to drive east on the south lode, by six men, at 7*l*. per fm. The 40, to drive east of the western shaft, by four men, at 5*l*. 10s. per fm. The 40, to drive west of the western shaft, by four men, at 6*l*. per fm. The 30, to drive west of the western shaft, by four men, at 4*l*. per fathom. The 26, to drive west of the western shaft, by two men, at 3*l*. 10s. per fm. The winze to sink below the 26, by four men, at 6*l*. per fm. The winze to sink below the 40, east of the cross-cut, on the south lode, by four men, at 5*l*. per fm. The winze to sink below the 40, west of the cross-cut on the south lode, by six men, at 6*l*. per fathom. The new shaft to rise above the 26 fm. level, by twelve men, at 8*l*. per fathom.

— T. Glanville, J. Scholar, March 19: In the 50 west the lode is yielding 3 tons of ore per fm., worth 8*l*. per ton. In the 50 east the lode is divided by a horse of killas, the branches producing stones of ore, but not to value. In the 40 east the lode is yielding 2 tons of ore per fm., worth 8*l*. per ton. In the 40, east from the western shaft, the lode is producing 3½ tons of ore per fm., worth 10*l*. per ton. In the 30, west from the western shaft, the lode is producing 2 tons of ore per fm., worth 7*l*. per ton. In the 26 east the lode is producing 2 tons of ore per fm., worth 7*l*. per ton. In the winze below the 26 the lode is 4 feet wide, producing 6 tons of ore per fm., worth 7*l*. per ton. In the winze below the 40 fm. level the lode is producing 2 tons of ore per fathom, worth 7*l*. per ton.

— T. Glanville, March 20: Since yesterday the lode is improved in the winze below the 26; it will now produce 8 tons of ore per fathom. The other parts are as reported yesterday.

EAST DEVON CONSOLS.—Thos. Richards, March 17: No change to notice in the engine-shaft, nor in the 52 west, since last report. In the 40 south we continue to break some beautiful quartz and rich yellow copper ore, and as we are getting near the south copper lode the present indications lead us to believe the lode, when intersected, will be found productive.

EAST GRENVILLE.—G. R. Odgers, W. Bennetts, March 19: We have no material alteration to report this week, because the shaftmen have been engaged fixing a new plunger-lift at the 45, and the other men have been principally engaged at capstan.

EAST GUNNIS LAKE AND SOUTH BEDFORD.—Jas. Phillips, March 20: The lode in the 16, east of Gard's shaft, is worth 1 ton of ore per fathom. The rise in back of this level is worth 4 tons of ore per fm. No alteration in any other part of the mine.

EAST JANE.—J. Vercoe, H. B. Vercoe, March 19: Western Lode: The eastern, or main part of the lode, in the adit end, is about 4 ft. wide, composed of carbonate of iron, friable quartz, and lead, producing of the latter 2 tons per fm. The western branch is about 1 foot 6 in. wide, composed of flookan, carbonate of iron, and occasional stones of lead, but not enough to value. We shall let this branch stand in consequence of the horse of killas between the branches being too wide to carry the level for the speedy development of the lode; present price for driving 50s. per fm. We have two stopes working in the back of this level—No. 1 producing 5 cwts., and No. 2, 7 cwts. per fm.; price for stoping 13s. per fm. We have let the new shaft to sink by nine men, at 15s. per fm., 10 fms. stent. We have received the offers for our parcel of lead, computed 14 tons; it is about the same value as the last.—Middle Lode: The lode in the adit end is about 3 feet wide, composed of flookan, killas, and mundic, altogether a kindly lode.

EAST ROSEWARNE.—John James, March 15: In the 55 east the lode is 1 ft. 6 in. wide, composed of a fine-looking quartz, mundic, and worth from 12*l*. to 14*l*. per fm. for copper ore. In the 55 west the lode is 1 ft. 8 in. wide, impregnated with copper; we are not as yet out of the elvans, but have small patches. In Hallett's shaft, sinking below the 43, we have a good bunch of ore 6 in. wide. In the winze below the 43 west the lode is 1 ft. wide, worth 24*l*. per fm.; the ground and lode is harder than usual, but the lode maintains its size and value, which is a good indication. There is no change to notice in the 43 cross-cut or any of our operations.

EAST TREFUSIS.—J. Hosking, March 20: The lode in the engine-shaft, sinking below the 58, is 16 in. wide, composed chiefly of spar. In the 58, driving east of engine-shaft, on Trelawny lode, the lode is still small, composed of gossan and quartz. In the 34, driving east of cross-cut from engine-shaft, on Trelawny lode, the lode is 2 ft. wide, composed of chlorite and quartz, producing stones of copper ore. In the 22, west of engine-shaft, on Smith's lode, we have met with another cross-course, having the same effect on the lode as those further east; we have commenced, and shall lose no time in driving, to reach the lode heaved north.

EAST WHEAL MARTHA.—Joseph Richards, March 20: The lode in the adit level, driving east of the engine-shaft, is being desued; the lode where cut into a few fathoms back from the end is presenting a very fine appearance indeed, being of large size, and composed of a light congenial capel, quartz, and mundic.

EAST WHEAL RUSSELL.—Jas. Richards, March 13: Homersham's Shaft: In the 120 the cutting of ground for trip-plat is finished, and the timbering of same will be completed to-day. The driving of the 120 east will be resumed to-morrow on the south part of the lode. In the 110 east the part of the lode being carried (4½ ft. wide), consisting of gossan, mundic, quartz, prian, and a small proportion of rich copper ore, is promising. In Fewin's cross-cut north, in the 100 east, the ground is become less favourable for exploring, being a mixture of quartz and killas. In the 100 east the lode is large, 4 ft. wide, consisting of capel, quartz, mundic, prian, and ore, the latter, however, is not sufficient to be of any marketable value. In Vigo's No. 2 rise, in back of the 100, on the north part of the lode, the lode is 2 ft. wide, and yields good saving work. The lode in the stope in back of the 100 east, west of Oats's No. 2 winze, is worth 12*l*. per fm. The 88 east is suspended for the present, to admit of a rise being put up in the back thereof, for proof of the lode, and to ventilate this, as also the 66 above. In the rise in back of the 66 east the ground is not so favourable, and for the present the progress is not so good as heretofore; we hope, however, for an improvement. In the 88, west of Hitchins's engine-shaft, 4 ft. of the lode is being carried, and is very promising, yielding rich stones of black and red oxide of copper.

— J. Goldsworthy, March 19: There is no change to notice in any of the bargains through the mine since last reported on.

EAST WHEAL TOLGUS.—March 19: Redruth Consols Lode: The lode in John's shaft has not been taken down during the first week. The lode in the 70 west is 10 inches big, composed of spar, peach, and spots of ore; in same level, east of shaft, the lode is 1 foot wide, composed of spar, peach, mundic, and spots of ore. We are stripping down on a branch in the 57 and 34 east, which has taken a more northerly direction. In the 57 the branch is 10 inches big, producing good stones of ore, and letting out a quantity of water, and has a good appearance. In the 34 the branch is 6 inches big, with spots of ore, but not so promising as the branch in the 57. We shall continue to push on a little on each to see what they may prove to be. The stope in the back of the 22 east is worth for tin and copper about 7*l*. per fathom. The ground in the adit cross-cut, south of new shaft, is a little harder than when last reported.

FOWEY CONSOLS.—F. Puckey, S. Sampson, W. Opie, March 17: Bottrall's Lode: In the 270, east of Bottrall's shaft, we are still driving by the side of the lode; we do not intend to cut through the lode until we reach the cross-course, which we hope to accomplish by the end of the month. In the 260 east the lode is looking very promising; it is 2 ft. wide, and will yield 1½ ton of ore per fm.; worth 7*l*. per ton.—Trathan's Lode: In the 260 east the lode has made a splice, but it is again opening wider, and kindly to improve. In the 240 east the lode is 2¼ ft. wide, producing good stones of ore. We have nothing new to report on Hewitt's lode since the last general meeting. In the 180 fm. level cross-cut, south of Union shaft, we have cut a lode, supposed to be Kendall's lode, which is 1½ ft. wide, of a very kindly character, and producing good saving work for copper. In a few fathoms further driving we expect to cut the footway lode, and from the size and character of this lode in the 140, the last level it was seen at, we have every reason to expect good results when cut at the 180.—North Lode: In the 60 end east the lode is 1 ft. wide, but at present poor. The lode in the winze sinking below this level is 1½ ft. wide, worth 10*l*. per fm. The lode in the rise in the back of this level is 2 ft. wide, opening out tribute ground; this lode is subject to making bunches of very rich ore, and the ground is a beautiful soft killas, easy for exploring.

GAWTON.—G. Rowe, March 15: We have completed the new stulls in back of the 50 west, and set the stopes on tribute at 10s. 6d. in 1*l*.; meantime being still engaged in clearing stuff in the level with all possible dispatch. The north part of the lode in the 36 west is favourable for driving, which course we purpose to continue some short distance further, until we find the south part of the lode less charged with water, and more economical to take it down and cut through. In the 36 cross-cut south we have intersected a branch or part of the south lode, about 14 inches wide, producing spar and mundic; the water is still flowing very strong from the end, which indicates another portion of the lode being still further ahead. There is no particular improvement in the tribute department during the past week.

GREAT BRIGAN.—T. Trelease, March 15: Yesterday being the tutwork setting, we beg to hand you our report of the same. The deep adit level to drive east of Trevenning's shaft, on North Treskerby lode, by four men and four boys, 8 fms. or the month, at 50s. per fathom; the lode in this end has very much improved both in size and appearance; it is now 3 ft. wide, composed of soft spar, mundic, and spots of ore; this level to drive west, on the same lode, by three men and three boys, 3 fms. stent., at 5*l*. per fathom; the lode in this drivage is about 18 in. wide, containing stones of copper ore; this level to drive west on Trevenning's lode, west of Oate's shaft, by two men and two boys, 3 fms. stent, at 40s. per fm. The shop shaft to clear below the 12, by three men, at 15s. per fm. The footway shaft below the deep adit, by two men, at 15s. per fathom. The cross-course shaft below the 12, by four men, at 15s. per fm. The eastern engine-shaft to clear below the 12, by two men, at 20s. per fm. At the engine-shaft we have discovered a 32 fm. level, but have not yet explored it sufficiently to give full particulars, but hope to do so in the coming week; we purpose at some future time to fix our first plunger-lift at this level, and also clear it throughout the mine. Our engine and whim-shaft is now cleared to the 28, and shall complete it in a few days to the 32, and commence from this part to clear both east and west on the course of the lode, where we hope to meet with some good tribute ground. There are several other places we intend clearing in the course of next month, but are not now in a position to set them. The water is drained 2 fms. below the 32, and we hope to make another drop in the course of the coming week.

GREAT NORTH DOWNS.—T. Trelease, March 15: We have commenced clearing the engine-shaft below the 20, now down 3 fms. 3 ft., and hope to get on clearing with good speed, as the water is only now about four and a half strokes per minute. We are clearing several other shafts and some of the levels, and in so doing are discovering some tribute ground.

GREAT ONSLOW CONSOLS.—G. Rickard, March 18: There is no change to notice in the lode in the winze below the 107. There is a slight improvement in the ground in the 122 east. In the 122 west the cross-course has been intersected during the past week; the lode is composed of quartz, mundic, pretty much can, with good stones of ore scattered throughout; the lode has improved since last report.

GREAT RETALLACK.—W. H. Reynolds, March 18: We have cut into the lode at the 53 about 5½ fms., and have not yet reached the footwall of the lode; two men will continue to drive this cross-cut, while the rest of the men open on a part of the lode that is yielding small stones of copper and lead.

GREAT SOUTH TOLGUS.—J. Daw, March 19: Little has been done in the driving of the 140, east of Lyle's shaft, in the past week, as the men have been employed in bringing down the skip-road. The lode in the 112 west is 3 ft. wide, producing 1 ton of ore per fathom. Other parts of the mine are much the same as last reported.

GREAT WHEAL BADDERN.—J. Hampton, J. Jenkin, March 15: The ground at Hill Brothers cross-cut is still more mineralised, and the killas is more clean than we have had it before, containing squats and strings of beautiful silver-lead ore; there is more water coming out of the cross-cut than when we last reported on it, and certainly getting into a more settled channel of ground; we have set again at the former price. At Landon's shaft the cross-cut is driven towards the lode 8 fms. 2 ft.; the stratum is light blue killas; the ground is jointy, or, technically speaking, full of heads, and most of these joints, if not the whole, contain lead, which of course is one of the best indications we can have, being only a short distance from the lode. Should the lode continue its underlie the same as in the railway cutting, we have about 3 fms. more to drive to cut the lode, but should the underlie be less as the lode goes down, which is sometimes the case, we shall have a little further to drive to it; we have set again at the former price, 5*l*.

GREAT WHEAL BUSY UNITED.—J. Delbridge, J. Petherick, J. Bryant, March 15: At the engine-shaft, sinking below the 120, the lode is from 20 in. to 2 ft. wide, yielding low-price tinstuff In the 120, east of Offord's, the lode is split up in branches, yielding stones of ore. In the 110, east of ditto, the lode is 6 feet wide, yielding a large quantity of tinstuff, with stones of ore. The 100, east of ditto, is yielding above 20 tons of ore per fm., with tinstuff. In the 90, east of Mathews's, the lode is 6 ft. wide, containing a little ore, with a large quantity of tinstuff. In the winze in the 80, east of ditto, no lode taken down. In the 70, east of ditto, the lode is 7 feet wide, yielding 4 tons of ore per fm. Mathew's shaft is yielding from 10 to 12 tons of ore per fm.; the lode in this shaft seems to be daily improving. Kitelee's winze is yielding 10 tons of ore per fm., with a very large quantity of tinstuff. Levitt's winze is yielding 18 tons per fm.; Wasley's winze is yielding 12 tons per fm. In No. 1 ditto the lode is small and poor. The 100 west is suspended for the present; we are driving north to intersect the lode in the elvans, or to the north of the level. In the 80 west we seem to be near the lode, a few feet more driving will prove the lode north of the elvans below King's shaft. In the 70 cross-cut there is no change to notice. We have dropped the lift at Boscawen's 12 fms. below the 40, which we hope will drain the 50 for fixing the plunger in that level. We are pushing on Kitelee's shaft below the 40 with all speed, also King's and Hunter's shafts below the 20 and above the 40; above this level (the 40) we find most of the ground taken away for a great length. Other things throughout the mines are progressing satisfactorily.

GREAT WHEAL MARTHA.—H. Rickard, March 20: Since my last report we have cut through the lode in the 52 east, and find it to be about 6 ft. wide, composed principally of capel, spar, and mundic, thickly spotted with copper ore. We are now driving on its course, carrying a portion of the lode with us. The lode in the 40, east from Thomas's shaft, is improving as we get off from the influence of the cross-course, producing good stones of copper ore. In the same level west the lode is much the same as last week, worth nothing to value, yet having a kindly appearance. All other places of tutwork in the mine are without change to notice, and the tribute department is improving. We are very busy in carting down the ore for the next sampling, which, when completed, will be over 300 tons. We purchased on Tuesday last, at a sale, a large lift of pumps, &c., wherein we effected a great saving.

GURLYN.—W. W. Martyn, J. Rees, March 19: Riche's Lode: In the 40 east we have set a rise to two men, at 30s. per fm., to lode to the 30, which, when completed, will lay open a large extent of tribute ground, and well ventilate this level. The 40 west is driving by four men, at 3*l*. per fm.; the lode is 1½ ft. wide, worth 6*l*. per fm. —Wheal Fox: The sumpmen will complete fixing the plunger-lift at the 20 by Saturday next, when we shall immediately resume sinking the shaft to a 30. The 20 east is driving by four men, at 1*l*. 5s. per fm.; the lode is worth for tin and copper 10*l*. per fm. The 20 west is driving by three men, at 1*l*. 15s. per fathom; the lode is worth for tin 8*l*. per fm. In the 10 east we have set a winze to sink to the 20, by four men, at 1*l*. 5s. per fm.; and in the same level west another winze, to four men, at 1*l*. 10s. per fathom, which will freely ventilate the whole of the workings in this part of the mine, and lay open some valuable tin ground, which will be taken away at about 4s. in 1*l*. The 20 cross-cut we are driving by two men, at 3*l*. per fm. We have now 42 tributers working, at tributes varying from 4s. to 13. 4d. in 1*l*. We are glad to say the mine is opening out well, and, from present appearances, bids fair to be a valuable and lasting concern.

GWYDYR PARK.—Capt. Smyth, March 20: We took down the lode in the deep adit this week; it is composed of a kindly looking spar, mixed with lead ore—rather improved since last reported; the branches are still closing the lode, but have not yet come to it. There is more water from the end than usual.

HAWKMOOR.—J. Richards, March 18: In the 50 west the lode is from 2 to 3 feet wide, of a very encouraging character, and is producing good stones of copper ore. In the 30, west of Graham's shaft, the end is letting out much water, and promising further improvement. In the 25 east the lode is producing good stones of copper ore. The lode in the stopes in the back of this level is worth 1½ ton of copper ore per fathom.—West Hawkmoor; The lode in the winze sinking below the adit level is small, producing stones of copper ore occasionally.

HARWOOD.—J. Race, March 14: We have risen to the top of the limestone, and the ore sets up to the top. We have begun to drive west; the ground is hard, and will yield 1 ton of ore per fathom. The bowse we have out is good, and we shall soon prepare a lot for market.

HINGSTON DOWN CONSOLS.—T. Richards, March 19: In the 130 fm. level cross-cut south some small veins of ore are still being met with. The 110 is without change. The 100 west is letting out much water, and will produce about 1 ton of ore per fathom. The stopes in the back of this level will produce 6 tons of ore per fm. The lode in the 85 west continues exceedingly promising, and will produce about 2 tons of ore per fm. The stope in the bottom of this level, east of Hosking's winze, will produce 7 tons of ore per fathom. The stope west of Hosking's winze will produce 8 tons of ore per fm. The stopes and rise in back of the 85 will produce 5 tons of ore per fathom. Bailey's engine-shaftmen are cutting plat at the 55, preparatory to sinking below. The ground in the new engine-shaft is favourable, and the part of the lode being carried is very promising.

KELLY BRAY.—S. James, March 15: The lode in the 70 east is not looking so well as it was, owing to a small cross-course being met with, which has disordered the lode for the time. No lode taken down in the stopes in the back of the above-named level during the past week. The lode in the 35 east has improved; it is now producing from 2 to 2½ tons of fair quality ore per fm.; here we are opening profitable tribute ground. There is no alteration to notice in the tribute department.—Eastern Mine: The lode and country appears to be changing for the better, as we approach the small cross-course which was driven through in the level above, underlying west towards the shaft; the lode is composed principally of blende, mundic, fluor-spar, and occasionally stones of copper ore, and very regular. We have sunk about 3 ft. in bottom of the above-named level, in order to prove the lode, where we consider it was most likely to produce ore, and I am glad to say we have met with a good branch of rich ore, about 6 in. wide, and looking at the nature of the ground in which the lode is embedded, there is every reason to expect an improvement; I have seen it this morning. The lode in the winze sinking below the 10 is not looking so well as it hitherto has; the ore it appears is dipping east towards the cross-course at the above point. We have commenced dressing ore for the next sampling with all possible dispatch.

LADY BERTHA.—Capts. Harpur and Metherell, March 17: In the 53 east we are driving by the side of the lode; the ground being moderately easy for driving: we are in hopes of meeting the ore ground passed through in the level over in a few fathoms in advance of the present end. No change to notice in the 53 west, but the ground is favourable for exploring; we have not cut into the lode here lately, being anxious to get under the winze sinking below the 40 as fast as we possibly can. The lode in the 41 east is about 2 ft. wide, composed of peach, quartz, mundic, and stones of ore. The lode in the winze sinking below the 41 west is from 4 to 5 ft. wide, composed of quartz, mundic, and ore, worth 4 tons, or 20*l*. per fathom. In the 30 east we have an improvement in the lode, being from 4 to 5 feet wide, with a bunch of ore on the south side, worth 2 tons, or 10*l*. per fathom. The stopes in the bottom of this level are suspended for the present; the lode here is worth quite 20*l*. per fathom. In the 10 east no lode has been taken down since last report. The tribute department continues to yield much as for some time past. But little has been done in the sinking of the new eastern shaft during the past week in consequence of the heavy rains. We have again resumed operations this morning.

— Capts. Harpur and Metherell, March 20: Since our report of Monday last no material change has taken place in the appearance or value of the lode in either of the ends, stopes, pitches, or winzes throughout the mine; we have, therefore, nothing particular to communicate to-day.

LLYWERNOG.—M. Barbery, March 19: Since my last we have succeeded in safely erecting the large 40 feet diameter water-wheel, and shall now commence to make the launders, and to erect the bob and connections. We are making good progress with the embankment across the valley to form the reservoir to aid our supply of water.

LOWER PARK.—W. Davies, March 20: The ground in Stuart's shaft continues hard for sinking. The lode appears to be disordered by the swallow, but expect in a few more yards sinking it will return to its regular course. The 40 yard level, driving west, is looking very promising, with spots of lead occasionally. The rise in the back of the 40 yard level, east of Stuart's shaft, is improving, and yielding good stones of lead. The office shaft is going down satisfactorily. We commenced dressing this morning, and expect to have a parcel ready for market.

LOWER TALDEWS SLATE QUARRY.—G. L. Fuller, C.E., March 17: The lower or northernmost sink is down 20 yards, and undercut commenced—indications very good. The upper sink in the bottom of the present opening is down 13 yards; indications not altered since last report. The pumping machinery in connection with the winding engine drawing from this sink is started, and works satisfactorily. Deepening the incline lift in connection with this sink is commenced.

MAUDLIN.—J. Tregay, March 15: The ground in the engine-shaft is rather harder for sinking than last reported. The lode in the rise in back of the 50 is producing saving work for copper.

MERLLYN.—W. Sandoe, March 19: We have pricked into the north and south lode in the 20 cross-cut, and have broken some nice stones of solid lead ore; so far as seen it looks exceedingly promising.

MINERAL COURT.—J. Martyn, March 18: The new eight heads of stamps are employed on the tributers' stuff, which is turning out excellently. Our wheel is of sufficient power to carry 16 heads, and there is a sufficient quantity of stuff in sight to keep 30 heads at full work for many years to come. We have brought home two streams of water, and are bringing home another large one; when this is done we shall have a full supply of water. A party has offered to take a pitch at 8s. in 1*l*., but at present we cannot stamp the work, for want of sufficient stamp-heads.

MOLLAND.—T. Bennetts: The lode in the engine-shaft, sinking below the 32, is 1½ ft. wide, producing a little ore, though not much to value; the branch gone out of the shaft, and now standing to the north, is, I believe, the main part of the lode. The heavy rains which have fallen here of late have thrown a good deal of additional water in the shaft for the present, but which I hope will soon decrease. The stopes in back of the 42 east are producing 1 ton of ore per fm. In the stopes in back of the 32 east no lode has been taken down since last week, but I believe when taken down it will prove to have produced much the same quantity of ore as when last reported—1½ ton per fm. We hope to have a parcel of ore, about 50 tons, dressed and taken to Barnstaple by the end of next week (provided we can depend on the carriers), which I presume will in no way be inferior in quality to the last parcel sold.

NANTEOS AND PENRHIW.—H. Boundy, Wm. Paull, March 18: Eystumtian: The lode in the 10 west is very hard, and consists chiefly of capel and mundic. We have suspended the driving of it for the present, and put the men to stope in the bottom of the adit east and west of shaft, where the lode is yielding about 1 ton of ore per fathom. Rowe's level west is set to drive by two men, at 4*l*. 10s. per fathom; the lode is all the width of the end, composed of clay-slate, mundic, and blende, yielding some very excellent stones of lead ore, and presenting a very promising appearance.—Bwlch Gwyn: The lode in the 30 east is yielding a little ore, but scarcely sufficient to value. We have taken two men from this end, and put them to drive Harding's cross-cut north, as we did not wish to incur any extra cost in doing so. There is nothing new to remark in the tribute department. The surface work is being carried on much the same as usual.

NANTY.—March 18: The lode in the top level, going north of boundary, is 4 feet wide, unproductive; the lode in the stope over this level, 6 fathoms north of boundary, yields 12 cwts. of ore per fm.; the three other stopes over this level, north of the long rise, yields a little ore; these stopes are worked up near the surface, and cannot be expected to yield much more ore. The stope in bottom of the top level, 25 fms. north of long rise, yields 7 cwts. of ore per fm. The lode in the roadway level, going north of the boundary, is large; the part we are carrying yields 15 cwts. to 1 ton per fm.; the lode in the stope over the same, 8 fms. north of boundary, yields 12 cwts. of ore per fm. The lode in the 10, above the deep adit, going north of boundary, yields 14 cwts. of ore per fm.; the lode in the stope over the same, north of Harding's rise, yields at present 8 cwts. per fm. The lode in the deep adit, going north of boundary, yields 15 cwts. of ore per fm.; the lode in the rise over this level yields 1 ton of ore per fm.

NANT-Y-IAGO.—James Reach, March 15: The lode in the 10 west is 18 in. wide, and of a very promising character; on the footwall we have a solid branch of blende about 4 in. wide, with a little lead ore diffused throughout, but not yet in sufficient quantities to value; however, the lode is becoming improved, and highly congenial for lead ore. The lode in the rise above the 10 fm. level is 2½ feet wide, yielding full 30 cwts. of ore per fathom, and several cwts. of blende. We have completed the winze-plat, and shall commence sinking under the 10 west on Monday; here the lode is worth 1 ton of ore per fathom; we have two men employed in this place at present, and shall put two more, when the level shall be extended 6 ft. further. The price of blende is at present low. We have 13 or 14 tons of lead dressed, and a great many tons on the floors to dress. All the surface operations are going on very well indeed.

NEW CROW HILL.—The winze is holed from the 35 to the 55 east; four of the men are put to stope the lode, to break work for the stamps, and four to drive the 55 east. The ground in the 70 as we approach the lode softens, and now requires whole timber of 8 or 9 in. square to support it; it cannot be more congenial for the production of lead than it is, and our expectations are high, the change of ground is so great below the slide.

NEW TRELEIGH.—F. Pryor: The lode in the 90, east of Carr's engine-shaft, is looking a little better, and will now produce fully 1½ ton of ore per fm. No other alteration since last report. We have the boiler and part of the engine on the mine, and the other parts will be brought home as soon as possible.

NORTH BASSET.—T. Glanville, G. Davey, March 14: Tutwork Setting: The flat-rod shaft to sink under the 142, by nine men, at 50*l*. per fm. The 142 to drive east of the flat-rod shaft, by four men, at 9*l*. 10s. per fm. The 142 to drive west, by four men, at 8*l*. per fm.; the lode is 2 ft. wide, producing good stones of copper ore. The 102 to drive west of Lyle's shaft, by eight men, at 18*l*. per fm.; the lode is 2½ ft. wide, composed of spar, interspersed with yellow copper ore. The 102 to drive west of the cross-cut, on the south part of the lode, by four men, at 7*l*. per fm. The 92 to drive east of Grace's shaft, by six men, at 5*l*. 10s. per fm.; the lode is 3 ft. wide, yielding stones of copper ore. The 92 to drive west, by four men, at 12*l*. per fathom. The 82 cross-cut to drive south, by four men, at 30*l*. per fathom. The 62 to drive west of Grace's shaft, by two men, at 8*l*. 10s. per fathom. The 52 cross-cut to drive north of Grace's shaft, by four men, at 12*l*. per fathom. The 42 cross-cut to drive south of the western shaft, by four men, at 15*l*. per fathom. The 42 to drive west of the north shaft, by four men, at 5*l*. per fathom; the lode is 1 ft. wide, composed of spar, mundic, and copper ore.

NORTH BULLER.—J. B. Delbridge, March 15: The men are making fair progress in driving the 78 cross-cut north towards King's shaft. In King's flat-rod shaft, sinking below the 55, we are making good progress in sinking; the lode in the shaft is 8 in. to 12 in. wide, composed of iron, quartz, mundic, and spots of copper ore. All other things are working well throughout the mine.

NORTH HAFOD.—R. Williams, March 19: The engine-shaft being sunk by nine men is now down about 8½ fms. from surface; the lode is still large, and of an exceedingly promising character. The carbonate of lime gradually dies out, and gives place to the usual stone found in the lodes of this district, which are most productive of lead. Indeed, every feature of the lode at this mine seems to correspond exactly with that at Frongoch at the same depth, and I fully expect ere long to be able to report a good lode.

NORTH MINERA.—Wm. T. Harris, March 20: Eastern Shaft: The lode in the 30, driving west, has improved since last report, now worth from 1½ to 2 tons of lead per fathom, and very promising indeed; I have no doubt we shall have a further improvement here shortly.—Pugh's Shaft: The 40 yard level, driving east, progresses favourably, and produces about the same quantity of lead per fathom as for some time past—4 tons per fathom. No alteration in any other part of the mine since last reported.

NORTH WHEAL ROBERT.—James Richards, March 13: Murchison's Shaft: In Elliott's cross-cut south, in the 52 west, the ground continues hard, and the progress is, therefore, slow. In the 42 west, east of Crowle's wine, on No. 1 south lode, the lode is 18 in. wide, composed of mundic, quartz, and good stones of ore. In Edwards's cross-cut south, in the 30 west, the ground is favourable for progress. In the 30 west, east of Edwards's, on No. 2 south lode, the lode is 2 feet wide, consisting of quartz, capels, and a small proportion of copper ore. In the 20 west, east of Toll's cross-cut, on the south part of the lode, the lode is 1 foot wide, and yields good stones of ore occasionally. In Will's stope, in the back of the 20 west, and west of Toll's cross-cut, on the south part of the lode, the lode is worth ½ ton of ore per fathom. The lode in Rich's stope, in the back of the 20, on the north part of the lode, is worth 1 ton of ore per fathom. In Stanscombe's cross-cut north, in the 30 west, the ground is easy, and good progress is being made.—Trial Shaft: In the 80 west, the part of the lode being carried (2 feet wide) is composed of flookan, and occasionally good stones of ore. In the 42 west, east of Scoble's cross-cut, on the south part of the main lode, is 1 ft. wide, and yields some good saving work. In the stope in the back of the 42 west, on the south part of the lode, the lode is worth 30*l*. per fathom. Bennetts' winze, sinking below the 30, on the tin lode, is down 3 fathoms; the lode is 18 in. wide, and yields occasionally good stones of tin ore.

— W. Godden, March 20: There is no particular alteration to notice in any part of the mine since last report.

NORTH WREY.—T. Kemp, March 21: The new shaft is without alteration; we are pushing on with all the speed possible, but I ought to add that I find the shaft will not be completed and cased down to the 38 fm. level by the time mentioned in my report of the 26th ult. It has taken much more time to square down than I expected.

PEDN-AN-DREA UNITED.—Wm. Tregay, J. Thomas, March 15: The water was not got in fork to the bottom until Wednesday morning, in consequence of an increase upon the engine. The lode in bottom of the engine-shaft is worth 16*l*. per fm. for the length carried, 14 ft. The 110 west is worth 7*l*. per fm. The 110 east is worth 30*l*. per fathom for the breadth carried, 6 ft. The stopes are worth 20*l*. per fm. The 100 east is poor. The 100 west is worth 7*l*. per fm. The 90 west has improved in appearance, yielding good stones of tin. The 90 new rise is poor. The 80 west is poor. The 90 west, on Skimmer's lode, is worth 7*l*. per fm.—Cobbler's: The lode in the 68 east produces fair quality tinstuff; we have not yet reached the south wall.—Street and Bragg's: The 67 east is poor. In the 40 east the lode is small—1 ft. wide, producing fair quality tinstuff. We sold to-day at Bissoe 7 tons 19 cwts. 3 qrs. 25 lbs. of black tin for 514*l*. 5s. 8d.

PENDEEN CONSOLS.—W. Eddy, J. Warren, March 15: The 142 fm. levels have been driven south 4 ft. and north 6 ft.; the lode down at this level has a strong appearance, and promises well for much mineral in depth. The 130 north is driven 3 fms., and 3 fms. of lode taken down, which has yielded 3 tons of ore per fm.; worth 12*l*. per fm. The 118 north is driven 3 fms. 3 ft. 6 in., but no lode taken down nearer than 4 fms. behind the end; here the lode is producing 6 tons of ore per fm., and is still worth 20*l*. per fathom. The 118 south is driven 3 fms. 1 ft.; in this end the lode is poor, but the ground is very congenial for tin, and much water issuing from the lode, which is very generally considered in our district a good omen for a bunch of tin. The winze sinking from the 106 to ventilate this end has about 2 fms. more to sink. The 106 north is driven 4 fms. 5 ft; this end has been producing a little ore, but now poor. The 82 north is driven 5 fms. 3 ft. 6 in.; the ground in this end is good for driving, but the ventilation is not good; by that reason we have only four men working instead of six; we hope to have this end well ventilated in two months more by a winze from the 70. The stopes throughout the mine are a little improved since last month.

POLHIGEY MOOR.—S. Bennetts, March 18: At Treffry's shaft the "lode-an-chase" in the 12 end east is 1½ ft. wide, and producing about 4 cwts. of tin per 100 sacks. The west end, on ditto, is 6 in. wide, and producing 15 cwts. of tin per 100 sacks. The east shaft, north lode, east end, is small and poor near the cross-course just discovered. The west end is 1 ft. wide, and producing 8 to 10 cwts. of tin per 100 sacks. In the cross-cut south of this shaft we have met with a very good cross-course 1½ ft. wide, quite soft, and nearly perpendicular, bearing 30° west of south; whether it is the same as we are driving on at the south shaft does not seem quite clear. The caunter lode at the south shaft, east end, is 1½ ft. wide, and producing 4 to 5 cwts. of tin per 100 sacks. The [illegible] is 6 in. wide, and good work; there is nothing further discovered south. [illegible] have commenced sinking this shaft below the 12.

PRIDEAUX WOOD.—F. Puckey, J. Puckey, March 17: The lode in Kendall's shaft, sinking below the 64, is divided by a horse of granite; the north part of the lode for 2 ft. wide is producing occasional stones of grey copper ore and a little tin; the south part of the lode is 1½ ft. wide, composed of quartz and iron, but at present poor for tin. We hope to accomplish the sinking of the shaft to the 80 by the end of this month. In the 64, east of the shaft, the lode is 1 ft. wide, but poor. In the 54 cross-cut south we expect to be getting near the south lode, as the end is now letting out much water, and the ground a little more favourable for driving. The lode in the rise in back of the 44 east, is 4 ft. wide, [illegible] is 2½ ft. wide, producing saving work for copper. In the 34 west the lode is 4 ft. wide, composed chiefly of quartz, with a little peach, and producing saving work for tin, with favourable indications of a further improvement, as we expect to be getting under a better run of tin ground. Our tribute pitches are without alteration. We expect to have 3 tons of black tin ready for the calciner by the end of this month.

PROSPER UNITED.—W. H. Martin, W. Millett, March 20: Louisa's engine-shaft is sunk 9 fathoms below the 40; the sumpmen are working with vigour, in order to intersect the lode, if possible, at the 50 within the month. The water at Hosking's engine-shaft is drained to the 60; the sumpmen have resumed cutting the shaft down full size below the 40. In the 40, east of Louisa's shaft, on the north side of the elvan, the lode is 2¼ feet wide, producing stones of yellow copper and tin, with good indications.

tions of further improvement. The lode in the 40, west of Louisa's shaft, maintains its size (5 feet wide), yielding excellent work for tin and copper. The winze east of Hill's shaft is sunk as deep as the 40; the lode is 3 feet wide, yielding saving work for tin and copper. The stopes, west of Hill's shaft, at the 30, are yielding tin and copper, of about the same quantity and value as last reported. The lode in the 20, west of Hill's shaft, is 4 feet wide, yielding saving work for tin in the gossan. In the 30, west of Henry's shaft, the lode is 2½ feet wide, producing stamping work for tin. Our copper ore sampling takes place on Tuesday next, when we hope to have upwards of 100 tons of fair quality ore.

PROSPIDNICK.—R. Kendall, R. Sincock, March 15: Watson's engine-shaft is 10 fms. 3 ft. below the 22 fm. level; we intend to make this lift 11 fms., as the lode is improving. The lode in the 22 east is small, no tin to value, but the ground is looking better as we get off the cross-course. The lode in the winze sinking under the 22 is much the same as last week. The lode in the stopes is worth 7*l.* per fm.

PROVIDENCE.—W. Hollow, P. Rogers, W. Dunstone, March 19: This being our pay and setting week we shall send you a full report next; on the whole, there no change to notice.

REDMOOR.—Thos. Taylor, March 18: The 40 north, on Pomery's cross-course, is a little harder. In the 40 west, on Johnson's lode, the ground is improved, no lode being taken down. In the 70 west the men will take down the lode at once. The lode in the 80 stopes is at present more capelly, and worth about 8*l.* per fm. No alteration in the tribute ground.

ROSEWARNE UNITED.—H. Woolcock, March 20: At St. Aubyn's engine-shaft, sinking below the 90, the lode is 2 feet wide, producing stones of ore. In the 90, west of footway, the men are cutting north through the lode. In the 90, east of Jennings', the lode is 2 feet wide, producing a little ore. In the 80, west of footway, the lode is 3 feet wide; the lode in this end has a more promising appearance for producing copper than for some time past. In the 74, west of Richards', the lode is 2 ft. wide, at present unproductive. In the 58, west of Richards', the lode is 4 ft. wide, worth for copper 30*l.* per fm. In Bush shaft, sinking below the 46, the lode is 4 feet wide, producing good stones of copper and tin ores. In the 46, east of Lane's shaft, the lode is at present disordered by reason of an elvan course met with during the last two or three days. In the 34, west of Bush shaft, the lode is at present small; but we think, from the appearance of the rock, it will shortly improve.

SORTRIDGE CONSOLS.—J. Richards, March 13: In the 40 west, and west of William's rise, on the north part of the main lode, the lode is 20 in. wide, composed of mundic, peach, capel, and good stones of ore. The lode in William's rise, in back of the 40, west on the north part of the main lode, is 2 ft. wide, and yields some saving work for copper ore. In the 40 west, east of Rowe's cross-cut, on the north part of the main lode, the lode is 2 ft. wide, and yields good stones of ore. In Jenkin's rise, in back of the 40 east, and east of the eastern shaft, on the north part of the main lode, the lode is promising (18 in. wide), and yields good saving work. The lode in Gribbon's stope, in back of the 50, on the south part of the main lode, is worth 1⅛ ton of ore per fm. In Crew's stope, in bottom of the 40, on the south part of the main lode, the lode is worth 1⅛ ton of ore per fathom. The lode in Stanning's stope, in back of the 40, on the south part of the main lode, is worth 2 tons of ore per fm. In the 30 east, and east of White's cross-cut, on the south part of the main lode, the lode is 20 in. wide, consisting of mundic, quartz, and a little ore. In the 30 west, on the north part of the main lode, the lode is from 2 to 3 feet wide, composed of gossan, quartz, mundic, and a small portion of black oxide of copper, and is promising. In Dunn's rise, in back of the 20, no lode has as yet been taken down.

— Robert Jackson, March 20: I beg to say that the 40 fm. level, west of Williams's rise, on the north part of the main lode, the lode is 1⅛ ft. wide, yielding good stones of ore. In Williams's rise, in back of the 40, on the north part of the main lode, the lode is 2 ft. wide, producing stones of ore. In the 40, east of Rowe's cross-cut, on the north part of the main lode, the lode is 1⅛ foot wide, composed of spar, flookan, mundic, and stones of ore. In Jenkins's rise, in back of the 40, east of the eastern shaft, on the north part of the main lode, the lode is 1⅛ foot wide, yielding some good saving work. In Gribbon's stopes, in back of the 50, on the south part of the main lode, the lode is worth 1⅛ ton of ore per fm. In Stanton's stopes, in back of the 40, on the south part of the main lode, the lode is worth 2 tons of ore per fm. In Crew's stopes, in bottom of the 40, on the south part of the main lode, the lode is worth 1⅛ ton of ore per fm. In the 30, east of White's cross-cut, on the south part of the main lode, the lode is 2⅛ feet wide, yielding a little ore, worth nothing to value. In the 30, west of the engine-shaft, on the north part of the main lode, the lode is 2⅛ ft. wide, producing good stones of ore. No change to notice in any other part of the mine.

SOUTH CARADON WHEAL HOOPER.—W. C. Cock, March 15: The ground in the 90 cross-cut north is a little easier. We have commenced sinking the winze below the 62, on No. 7 lode, the lode looks rather better than it did when we commenced sinking. The 62 west, on this lode, is also looking better; the lode containing more ore, and the granite is more congenial for copper ore; these are two very promising points, and I should not be surprised at having a good discovery any day. The 47 cross-cut north is just as last reported.

SOUTH CARN BREA.—T. Grenville, March 19; In driving the 68 cross-cut north we have intersected a lode, and driven into it about 3 feet; so far as seen it is composed of chlorite, mundic, copper, and tin ores. In opening a few fathoms we shall be enabled to speak more of its character. Tin and copper sold on the 15th inst. realised 831*l.* 7*s.* 6*d.*

SOUTH CONDURROW.—W. Richards, March 15: No lode taken down in either of the bargains since last week, consequently there is no alteration to report. Friday being pay and setting-day, you will receive a full report next week.

SOUTH CRENVER.—E. Chegwin, March 17: The sumpmen are engaged cutting plat at the 124, also driving the 124 west; the lode in this end is 1½ ft. wide, producing good stones of ore, and ground favourable for driving. In the 105 east the lode is 3 feet wide, producing 2 tons of copper ore per fathom, and the ground a little more favourable for driving. Our tribute pitches in bottom of the mine are improved.—South Mine: In the 51, east of cross-cut, the lode is 2 ft. wide, producing good stones of tin. In the 51, west of cross-cut, the lode is 1½ ft. wide, producing a little tin and spots of copper ore, and ground more favourable for driving. In the rise in back of the 51 the lode is 1½ ft. wide, producing good stones of tin. We have about 4½ fms. more to rise to communicate with the 32 winze.

SOUTH DOLCOATH AND CARNARTHEN CONSOLS.—Wm. Roberts, March 18: In the 50, both east and west, the lode has not been taken down since last reported. The tributers are busy dressing, and we expect to sample a tolerable good pile of ore next week—some 15 or 16 tons, or more.

SOUTH LEVANT.—J. Carthew, March 19: There is nothing new to report. We are still driving the adit level on Ding Dong lode, which still retains its kindly appearance.

SOUTH TOLGUS.—March 19: Youren's Lode: The lode in Michell's engine-shaft, below the 130, is 2 feet wide, composed of spar, mundic, jack, and spots of ore. In the 130 west the lode is 15 inches big—unproductive. In the 120 west the lode is 1 foot wide, composed of spar, mundic, and stones of ore. In the 100 west the lode is 2 feet wide, producing 3½ tons of ore per fathom. The lode in winze sinking in bottom of the 110 west yields 1 ton per fathom; the stope in back of same 2 tons per fm. The lode in the 100 west is 10 inches big—unproductive. In the winze sinking in bottom of the 100 west the lode yields 1 ton of ore per fathom, and likely to improve. In the 90 west the lode is 1 foot wide, composed of jack and mundic, and the same will apply to the rise over the back of the 90 west. The lode in the 78 west is 18 inches wide, composed of spar, mundic, jack, and peach. In the 66 west the lode is 8 inches big, composed of spar and spots of ore. The stope in bottom of the 78 west yields 2 tons of ore per fathom.—South Lode: In the 130 east the lode is 18 inches wide, composed of prian, spar, and stones of ore, and has a better appearance than for some time past. The lode in the 120 east is 2 feet wide, composed of spar and stones of ore. In the 110 east the men are stripping down the lode in the rise over the back, which yields 2 tons of ore per fathom, the rise being holed. The stope in the back of the 110 east yields 2½ tons of ore per fathom. In the 100 east the lode yields 2½ tons of ore per fathom—fine lode.

STENCOOSE AND MAWLA UNITED.—T. Faull, N. Reed, March 20: The engine-shaft has been drained to the bottom, or 26 fm. level, where there is a large fine looking lode, producing splendid stones of rich yellow copper ore; the ground in this level is very troublesome for driving, in consequence of the enormous discharge of water from the lode, being at present 237 gallons per minute; but as the cutting through of the lode in the bottom level has drained the levels above, we are in hopes that in the course of a few days the water will decrease, and the lode be operated upon more expeditiously. The lode in the winze sinking in the bottom of the 15, west of engine-shaft, is looking very kindly, and producing some excellent stones of copper ore. We are happy to inform the shareholders that our prospects are encouraging, and the mine daily improving.

ST. JUST UNITED.—J. Carthew, March 19: Since my last report the engineers have fixed the main-bob of the engine, and to-day the cylinder is also fixed—shall soon have the engine in the house complete; we are preparing the place for the boiler. We have now on the mines 30 fathoms of pumps, working barrels, door-pieces and windbores, and 30 fms. of shaft-rods. Our work both underground and at the surface is progressing in a very satisfactory manner. In extending the lobby level from the cliff to the engine-shaft, on Saveall's lode, we find the lode 18 in. wide, with good stones of tin; from the general appearance of this lode I am satisfied it will yield a good quantity of tinstuff, and as soon as the stamps are at work will add very materially to our returns of tin from the Red Dipper, Wheal Widden, and the other lodes. Of these lodes, the more I see the more I am convinced that they are masterly tin lodes, and that it only requires an energetic and extensive development to make this one of the leading mines of the neighbourhood; I am satisfied the returns of tin will confirm this opinion very soon after we get into working order. We have six men making good the engine-shaft above the adit level, and six men clearing up and making secure the Red Dipper whim-shaft, which is now cleared 27 fms. below the surface, and I find both ends of the shaft worked away per fm., a convincing proof that the shaft is gone down in a run of tin ground. Three men clearing and securing Wheal Whidden whim-shaft; three men securing East Back shaft; four men driving the lobby level to bring back the water from the dressing-floors to the engine-shaft, in order to its being again used; four men fixing launders in adit levels; four men taking out foundation for steam-whim house, &c.; two men clearing out space for boiler of pumping-engine; nine men and two boys clearing away stuff for stamps, pit, &c.; six masons building fly-wheel loading, and six men assisting them with stones and clay; three men raising large stones for building; four men and two boys sawing timber; three carpenters, one smith, and one striker.

TAMAR SILVER-LEAD.—March 19: The engine-shaft is now 11 fms. 3 ft. under the 237 fm. level; at present the ground is harder for sinking, being mixed more with spar. In the 237 south there has been no lode taken down since my last report, but from the appearance of the lode now standing will, when taken down, turn out well. The three stopes in the back of this level will yield as follows:—No. 1, 20 cwts.; No. 2, 10 cwts.; and No. 3, 5 cwts. of lead per fm. In the 226 south we have communicated the rise with Collom's winze, and which has given good ventilation. The men are now engaged to drive south; the lode in the end is 12 ft. wide, but at present poor. The three stopes in the back of this level are yielding respectively 5, 8, and 10 cwts. of lead per fm. The lode in the 215 south is 3 ft. wide, producing 9 cwts. of lead per fathom. The stopes in the back of this level, four in number, are yielding as follows:—No. 1, 7 cwts.; No. 2, 8 cwts.; No. 3, 12 cwts.; and No. 4, 10 cwts. of lead per fm. The stopes in back of the 205 south are worth 7 cwts. of lead per fm.

TOLCARNE.—March 20: In Field's shaft, sinking below the 30, the lode is 20 in. wide, producing occasional stones of ore—a kindly lode. In the 30 west the lode is 18 inches wide, composed of gossan and spar. In the 30 east the lode is 2 feet wide, composed chiefly of spar. In the 20 east the lode is 2⅛ feet wide, yielding 1 ton of ore per fathom. The lode in the 20 west is 1 foot wide, containing spots of ore. In the 10 east the lode is 1 foot wide, yielding 1 ton of ore per fathom—a kindly end. In the winze sinking below the 20 west the lode yields 1 ton of ore per fm. The lode in the 10, east of Field's shaft, is small and unproductive. In the stope in bottom of adit, on Enthoven's lode, the lode is large, worth from 20*l.* to 25*l.* per fathom for tin. The ground in the adit level, south of Field's lode, is hard. It will take about a week to complete King's shaft to the adit level.

TRELOWETH.—T. Richards, March 20: In the 144 cross-cut, driving south, the lode is not cut through; so far as seen it is poor. The 134 end east is unproductive. The lode in the 134 end west is worth 10*l.* per fm. There is a good lode in the winze sinking, west of the engine-shaft, below the 134, by tribute. The 80 end, west of Woodfall's shaft, is worth 8*l.* per fm. Nothing to notice elsewhere in the mine.

TRENCROM.—R. Hollow, F. Bennetts, March 20: Giesler's engine-shaft is sunk below the 100 fm. level 3 fms.; the lode is 10 inches wide, and tinny. The lode in the stope in the back of the 100 fm. level, east of the engine-shaft, is worth 4*l.* per fm. The lode in the winze sinking below the 90 fathom level, east of the engine-shaft, is worth 3*l.* 10*s.* per fm. The lode in the 90 fm. level, east of the engine-shaft, is worth 3*l.* 10*s.* per fm. The 70 fm. level, east of the engine-shaft, is clearing and securing. Hollow's shaft, sinking below the 40 fm. level, is worth 4*l.* per fm. The lode in the 30 fm. level, east of Hollow's shaft, is worth 6*l.* per fm. In the 30 fm. level, west of Michell's flat-rod shaft, the lode is cut off by the cross-course; we have about 2 fms. to drive north to intersect the lode on the west side. The 60 fm. level, east of the cross-cut north, on the new north lode, is worth 3*l.* 10*s.* per fm. The branch, west of the 60 fm. level cross-cut south, is in disordered ground, not to value. In the 100 fm. level cross-cut north, on the cross-course east of the engine-shaft, the ground is better for driving. Set at 2*l.* 10*s.* per fathom.

TREVENEN AND TREMENHEERE.—J. Webb, March 19: We have drained and cleared the old engine-shaft 8 ft. below the 180 fm. level, which is full of mud, broken timber, and rubbish, rather slow work for getting away; we have no appearance of bottoms as yet. During the last week the water has been in the Trevenen engine-shaft and bottom stopes, in consequence of an increase of water occasioned by the late rains. One of the stopes in back of the 150 is improved, but the other places throughout the mine are going on just as usual.

TRUMPET UNITED.—G. R. Odgers, March 15: The lode in the engine-shaft, sinking below the 25, is from 1 ft. to 15 in. wide, from which I broke this morning some very good stones of tin; this is coming in under the mundic, which I look upon as a very favourable sign. The lode in the 25 west is at present small, but yielding good stones of tin; there is water oozing from it, and as we have a good lode a few fathoms west of the winze, I am expecting a change for the better shortly. The lode in the stope above this level is 8 in. wide, and worth 5*l.* per fm. The lode in the winze sinking below the 15 west is about 10 in. wide, yielding some splendid work for tin, worth 12*l.* per fm. We are getting down as fast as possible with the shaft on Wheal Ann lode. We are busy stamping, and I am hoping to sell a nice little parcel of tin before the meeting.

UNITY.—W. H. Reynolds, March 18: We have not taken down any lode in the 50 or 75 west since last report. In the 50 cross-cut south we have met with two or three small branches, made up of spar, iron, mundic, and a little copper, and may be near the south lode.

VALE OF TOWY.—A. Waters, T. Harvey, March 13: In the 110, driving south of Clay's engine-shaft, the ground is more favourable for progress, and the lode letting out more water than hitherto. There is no material change in the character of the lode since our last, nor do we expect any until we get down 10 or 12 fms. further south than present end, when we shall be out of the influence of the great cross-course. In the 100, driving north of said shaft, the lode is 3 ft. wide, composed of barytes and blende, with spots of lead ore of a very promising character. The rock is this direction is highly mineralised, and we seem justified in expecting deposits of ore between this and Bonville, especially when the intersections of the different slides are considered. In the 100, south of same shaft, the lode continues to traverse a section of hard rock, but, nevertheless, is looking better to-day than for the last six months. We have had some rich solid stones of lead ore this morning, and at present looks well for improvement. In the 90, south of Field's shaft, the part of the lode being carried is 3 ft. wide, composed of barytes and blende, with spots of lead ore, but not to value. In the new adit level, driving south towards Pwl Plomb (so called by the ancients, and in English Lead Pit), the lode is 2 feet wide, of a promising character; ground hard—as last reported. The tribute department is much as for the last month or two. We are making arrangements to send a parcel of blende to Messrs. Vivian and Sons' works, near Swansea. We think of loading the trucks on Friday or Saturday next.

WENTNOR (Pantasa).—J. Kemp, March 20: No alteration here; men making good progress in the 92; lode large, composed of carbonate of lime, spotted with lead. I intend to cut through the lode south to get the hanging wall, which I believe to be the ore-bearing part of it.

WEST BASSET.—W. Roberts, March 19: In the 114 cross-cut the lode can be seen 2⅛ ft. wide, and the south wall not yet discovered; the first 1⅛ ft. produces 2 tons of good yellow ore per fathom. It will take some days to get through the lode to properly ascertain its value, as the ground is very wet, and rather hard for driving.

WEST CONDURROW.—George Jewell, March 13: We are pushing on the 36 fm. level cross-cut, south of the engine-shaft, with all speed to intersect two other lodes to the south of Killivose lode. In the 36 east the lode in the end is 1 ft. wide, composed of spar, prian, and stones of tin. In the 24, east of Purser's shaft, the lode is 10 in. wide, and producing tin, worth 5*l.* per fm., and letting out much water.; this level has recently been improving in character as it gets further east, indicating an approach to tin ground of greater value than it has yet passed through, and corresponding with the course of tin standing in bottom of the 12, which dips to the east. The stope in bottom of the 12, east of Purser's shaft, is much improved in stoping both in size and quality, being at present 3 ft. wide, and worth 60*l.* per fm. The stope in back of the 12, east of Purser's shaft, is worth 12*l.* per fm. The adit level end, east of Purser's shaft, is 25 fms. from the cross-course, where we expect to make an important discovery. All other parts of the mine are much the same as when last reported on. Our present prospects give us every encouragement of having a good mine.

WEST DEVON CONSOLS.—J. Donnal, March 19: The south shaft is sunk about 10 ft. below the 40, which is sufficiently deep to put in bearers and cistern, in order to fix the lift, to take the water coming from that level. This will be accomplished by the end of next week. All other necessary preparations for sinking this lift, such as cutting plat, putting in penthouse, &c., are completed. The lode in the rise in back of the 40 is from 1 to 1⅛ ft. wide, looking more promising than it has been.

WEST PAR CONSOLS.—H. G. Webb, March 20: The lode in the 65 end is opening out a little wider than last week, and a little more tin. I think there is still a hope it will improve, although we were expecting it would have done so before this time. The tributers and stopes are still getting a pretty deal of low produce tinstuff, and the stamps being pushed on with the dressing.

WEST SHARP TOR.—W. Richards, March 17: The men having finished the fork and tip-plat will now be engaged for two or three days in casing, dividing, and putting in bed plank from the back of the 162 to the bottom of the tip-plat; when this is done they will commence the 162 west, where the part of the lode to be carried will yield good stones of grey and black copper ore, and green carbonate of copper. We have a considerable improvement in the 162 cross-cut during the past week, the part of the lode passed through (2⅛ ft.) having produced splendid stones of grey and black copper ore, and it is equally as promising in the extreme point; if it continues as at present we shall soon have a good pile of ore at surface. The part of the lode now being cut into in the 162 east contains faces and small branches of rich ore. We expect to have to drive about 8 ft. more to get into the part that is now looking so encouraging in the cross-cut.

WEST SILVER BANK.—R. Williams, March 19: The men here are engaged in cutting a plat at the east end of the shaft, and we shall be ready to resume sinking again in a short time. I will send you (for the general meeting) my views on this property in more ample form.

WEST TOLGUS.—March 19: South Lode: In our last report we stated the lode in Taylor's shaft, below the 40, was yielding 2 tons of ore a fathom for length of shaft (14 feet), but all the lode was not taken down; since that time we have taken down the rest of the lode; it has much improved, and will now yield 3½ tons of ore per fm. for length of shaft. In the 65, west of Raven engine-shaft, the lode is 3½ feet wide, yielding 3 tons of ore per fathom. The 65 end is about 27 fathoms behind the shaft; we find the level is fast draining the water from the shaft, and as we progress we shall most likely cut down all the water.—North Lode: There has been very little done in the 40 or 50 fm. levels; the men are engaged about other work. We are sinking a winze in the bottom of the 50 west of cross-cut; the lode is 2½ feet wide, producing 1 ton of ore a fathom; the water is very busy, and we cannot calculate upon sinking it far, but it may induce tributers to try the ground. The ground in the 50 cross-cut north is considerably easy.

WEST TREVELYAN.—J. D. Osborn, March 15: In the 58, driving west, the lode is much improved, worth for ore 9*l.* per fm., and still likely to improve. There is no alteration in the 48 west since last report. The stope in the back of the 48 is worth 10*l.* per fm. Charles's shaft is sunk below the 48 fm. level 5 ft.; the ground is favourable for sinking. The stope in the bottom of the 48 is worth 8*l.* per fm. There is no alteration in the 28 cross-cut north this week. The rise above the 20 is up 12 fms. 4 ft. against Charles's shaft. Charles's shaft, sinking below the adit, is sunk 3 fms. 2 ft.; ground more favourable for sinking.

WEST WENDRON.—R. Kendall, March 15: The engine-shaft is 7 fms. below the 10 fm. level. No change to notice since last week. The lode at the flat-rod shaft continues to improve in quality.

WEST WHEAL JANE.—J. Tonkin, J. Smith, March 14: Our setting to-day has passed off pretty well, at about former prices. In the 70 west the lode is 6 feet wide, producing a little tin. In the 30 west the lode is 1 ft. wide, and unproductive. In the winze under the adit, west of Painter's, the lode is 6 ft. wide, producing saving work for mundic and tin. In the 10, west of Painter's, the lode is 4 ft. wide, worth about 8*l.* per fathom for tin. In the winze under this level the lode is 4 ft. wide, worth for tin and mundic 35*l.* per fm. In Painter's shaft, under the 10, the lode is now 6 ft. wide, worth for tin about 30*l.* per fm.; this shaft is now down 8 fms. below the level, and is laying open a valuable piece of tin ground.

WHEAL AGAR.—W. Roberts, March 18: In the 90 east the lode is 2 ft. wide, producing stones of ore; in the same level west the lode is 2 ft. wide, at present unproductive. In the 80 east the lode is 1½ ft. wide, saving work, and looking promising for further improvement. In the 80 west the lode is disordered by a cross-course. The stope and pitches are turning out well, and according to the present prospects we hope to have a good sampling next time.

WHEAL ARTHUR.—Thos. Carpenter, March 20: Since my last communication the lode in Daw's stope, in back of the 50, east of boundary cross-course, is very much improved; the lode is 2⅛ ft. wide, worth 2 tons, or 8*l.* per fm. This stope is 4 fathoms above the back of the 50, and 6 fms. east of boundary cross-course, and has every appearance for a speedy improvement. I do not see any particular alteration in the different ends and stopes since my last week's report; they are yielding just the same quantity of ore as they have for some time past.

WHEAL CREBOR.—Capt. Gifford, March 20: The lode in the shaft is 2 ft. wide, of a more promising appearance than it has been since we commenced sinking below the 60 fm. level, being composed of quartz and flookan, intermixed with arsenical mundic and white iron, much of the same character as we had in the 48 and 60 fm. levels just before meeting the ore ground—making good progress in sinking. No lode cut in either cross-cut at the 60 fm. level yet. The winze in the bottom of the 34 the lode is hard and not so good. In the pitch in the bottom of the 48 east the south part of the lode is still looking well, and going down almost perpendicular. We are preparing to fix the plunger-lift to the 60 fm. level, which will do away with three drawing lifts.

WHEAL CUPID.—R. Pryor, sen., March 15: The lode in the 40, west of the engine-shaft, is 15 in. wide, producing stones of yellow copper ore. The lode in the winze sinking below the 24, west of shaft, is 2⅛ ft. wide, and worth 8*l.* per fm. No change to notice in any other part of the mine since my last report.

WHEAL EDWARD.—W. H. East, March 15: South Lode: In the 81 west the lode shows a little improvement, and the ground is of the same character as it is in the level above, and we expect to see the lode equally as productive in a fathom or two further driving. In the 61 west the lode and ground are disordered by small cross-branches. The stopes and all other places are looking much the same as when last reported on. We are getting on very well with the next sampling.

WHEAL GRENVILLE.—G. R. Odgers, W. Bennetts, March 15: The shaftmen are busy sinking the engine-shaft below the 110. We are glad to say that the lode at the 110 west is from 20 in. to 2 ft. wide, yielding splendid grey and black ore, worth full 25*l.* per fm.; this is a pretty lode. The lode at the 100 west is in two parts, but yielding full 1 ton of good ore per fm.; this has improved since our last advice. The lode at the 90 west is small, but producing good stones of ore. The lode in the 80 east is 12 in. wide, yielding good stones of ore; this is looking better than when we last wrote. We cannot report any alteration in the 80 east on the new lode, because no lode has been taken down, therefore we cannot put any other on it. On the whole, we consider this mine is looking very promising, and we are busy preparing ore for another sampling.

— G. R. Odgers, Wm. Bennetts, March 20: I beg to inform you that we are making as much progress as we possibly can with the sinking of the shaft, in which there is no material alteration calling for remark. We are glad to say we have a good lode in the rise above the 110 west, worth 25*l.* per fathom; this is promising for laying open a good piece of orey ground. The lode in the 100 west will yield full 1 ton of good ore per fathom, and looking very kindly for further improvement. We have not taken down any of the lode in the 80, east of cross-cut, but which we expect to commence about to-morrow. The ground has been sparry, which we thinks agrees with the lode.

WHEAL GRYLLS.—E. Rogers, J. Pope, March 20: Fisher's Lode: Annie's engine-shaft is down 10 fms. below the 20; the lode is without alteration, worth 35*l.* per fm. In the 20 west the lode is worth 2*l.* per fm. In the winze in the bottom of this level east of the shaft, the lode is worth 25*l.* per fm. In the end east of the flat-rod shaft the lode is worth 7*l.* per fm. The winze in the bottom of the 10 is holed to the 20.—Georgia Lode: Georgia engine-shaft is commenced to sink below the adit; we are just getting through the slide in the north end of the shaft, where the lode is worth 30*l.* per fathom in the adit end north of the shaft. The lode is still continuing rich, worth 45*l.* per fm. In the winze rising in the back the lode is worth 30*l.* per fm. In the 33 fm. level we are clearing some attle, and expect to be ready to commence to drive this end by to-morrow morning.

— Fisher's Lode: I beg to say that the lode in Annie's engine-shaft is without alteration, worth 35*l.* per fm.; sinking at 18*l.* per fm., but we are carrying the shaft an extra length for fixing plunger at the 30; we expect the shaft will be down to commence driving at that depth by the end of this month. At the 20 west the lode will just pay for driving, which is 1*l.* 10*s.* per fm. In the winze in the bottom, east of the shaft, the lode is worth 7*l.* per fm.; sinking at 1*l.* 15*s.* per fm. In the end, east of the flat-rod shaft, the lode is improved, worth 7*l.* per fm.; driving at 3*l.* per fm. At Gryll's we have cut a plat and just begun to sink; the lode is worth 3*l.* per fm.; sinking at 1*l.* 15*s.*—Georgia Lode: Georgia shaft is enlarged, cased, and divided from surface to the adit, pent-house fixed in readiness to commence sinking below. In the adit end, north of the shaft, the lode has greatly improved, worth 45*l.* per fm. In the winze rising in the back of this level the lode is worth 16*l.* per fm.; rising at 1*l.* 10*s.* In the stopes in the back the lode is worth 20*l.* per fm.; stoping at 7*l.* per fm. In the stope in back of the 33 the lode is worth 12*l.* per fm.; stoping at 7*l.* per fm. In our tribute department we are looking very well, and the men are getting wages at their respective tributes, which vary from 4*s.* to 12*s.* in 1*l.*

WHEAL HARRIETT.—S. Williams, March 15: In sinking the engine-shaft we are making fair progress. The lode in the 115 end is 2 ft. wide, producing stones of tin. The lode in the 100 east end is 6 in. wide, unproductive. The ground in the deep adit cross-cut continues favourable for driving.

WHEAL HOPE.—W. H. Reynolds, March 18: In the 28 west the lode is large, and letting out pretty much water; we think this end is looking promising for improvement. In the 28 cross-cut south we have not yet met with anything more than the capels referred to in last report. We are cutting through the tin lode in two or three places in the 28 to ascertain its value, and are breaking some good tinstuff.

WHEAL KITTY (St. Agnes).—R. Pryor, sen. J. Nicholas, March 15: At the engine-shaft, in the 100 east, the lode is 2 ft. wide, worth 8*l.* per fm. In the 90 east we are driving south to cut the lode, which is heaved in that direction by the cross-course, and which we expect to reach in 6 ft. further driving. In the 82 east the lode is 1 foot wide, worth 8*l.* per fm., and likely to improve. In the rise behind this end we have cut a slide that has thrown the lode, and which will be again seen in two or three days time. At Holgate's shaft, in the 65 west, the lode is 2 ft. wide, and worth 7*l.* per fm. In the 54 west the lode west of eastern cross-cut is 1 ft. wide, worth 6*l.* per fm. The lode in this level, west of western cross-cut, is 2⅛ ft. wide, worth 14*l.* per fathom; this end is driven west of the cross-course about 5 fms.; is out of its influence, and well defined, being in a beautiful channel of ground, which is likely to produce large quantities of tin. The lode in the same level, east of the latter cross-cut, is 4 ft. wide, and worth 10*l.* per fm.; the ground in this end is still very hard, being precisely of the same nature as that in the western end when disordered by the cross-course. In the 44 fathom level cross-cut the ground has improved; and should this ground continue we shall reach the lode in three months from this time. The men are working from Monday morning, 1 o'clock, till Saturday 11 o'clock. In the 34 cross-cut the ground has also changed, being set to three men and three boys, at 4*l.* 10*s.* per fm. These two important points shall be carried out with all possible dispatch. Our pay and setting went off well.

WHEAL MOYLE.—R. Goldsworthy, G. Johns: We have not yet cut the south lode at the 30; we have met with an increase of water in the cross-cut, from which we calculate we are near the lode; the men will complete the plat at the 30 in a few days. There is no alteration in our levels or stopes worthy of mention since our last. We sampled 55 tons of stamped copper ore, and 9 tons of rough ore on Wednesday last.

WHEAL NORRIS.—J. Nance, J. Andrews, March 15: The ground in the bottom of both engine-shafts continues much the same as when we last reported. The ground in the 15 cross-cut, south of the No. 5 lode, at Cremorne shaft, is harder than we have had it for some time past. It appears that we have now got beyond the decomposed granite. Hitherto we have been obliged to secure the driving with timber, but now we can go on without it. The No. 3 lode, in the 15 end, driving west of Carter's shaft, is 1⅛ ft. wide, showing a more kindly appearance than it has for some time past, and more easy for driving. In the 15, east of Carter's shaft, we are cutting south to reach the south part of No. 3 lode. At this point the part of the lode is 1 ft. wide, but we expect that the main part is further south, as the lode is divided into two parts, where intersected from the shaft with a horse 3 ft. thick between the parts. The ground in the 16 cross-cut, driving north of Carter's shaft, continues much the same as before. The No. 4 lode, in the 15, east of Carter's, is 4 ft. wide, and consists of a splendid gossan, but not quite so good for tin in the present end as when we last reported on it.

WHEAL SHEPHERDS.—H. Bennetts, March 19: The lode in the adit level, east of new shaft, is very much improved in size, 3 ft. wide, spotted with lead and mundic.

WHEAL SICILY.—Thos. Hodge, March 19: In the 17, south of engine-shaft, on the west lode, the lode is 15 in. wide, producing good stones of lead, and likely to improve. On the east and west lodes very little has been done for the last day or two, on account of the bad air. We are now fixing an air-machine, which will be worked by the wheel, and this we expect to set to work to-morrow. The lode in the adit, south of new shaft, on the east lode, is 2 ft. wide, and has a very good appearance.

WHEAL TREMAYNE.—Rich. Williams, J. Williams, March 15: At the boundary engine-shaft, in the 133 east, on Allen's branch, the branch is yielding spots of tin, but not to much value. In the 123, east of Allen's shaft, on Allen's branch, the branch is worth 20*l.* per fm. In the skip shaft, sinking under the same level, on Allen's branch, the branch is yielding a little low-price tinstuff; we expect this shaft will be communicated next week with the bottom level. In the 113, east of Allen's shaft, on Allen's branch, the branch is worth 10*l.* per fm. In the cross-cut north of the same level there is no change to notice. The stopes in back and bottom of the same level, on Allen's branch, are worth on an average 12*l.* per fm. In the 103, east of the same shaft, on Allen's branch, the branch is improving, worth 8*l.* per fm. The stope in back of the same level is worth 12*l.* per fm. The skip shaftmen are progressing favourably with their work below the 103. The boundary engine-shaftmen are engaged clearing and securing the 53, east of shaft, in order to fix launders, to send the water back to the new engine-shaft. At the new engine-shaft the pitwork, &c., is all fixed, and will be put in working order next week.

WHEAL UNION.—T. Glanville, March 19: In the 40, driving east, the middle lode is 3 ft. wide, producing stones of copper ore, and worth for tin 5*l.* per fm. In the 18 east the lode is 4 ft. wide, composed of spar, mundic, black and yellow copper ore, but not enough of the latter to value.

WHEAL UNY.—S. Coade, M. Rogers, March 15: The engine-shaftmen are still opening ground on the north part of the tin lode, east of engine-shaft at the 90; we intend cutting into the lode next week to prove it. The 100, west of engine-shaft, is progressing favourably, at 4*l.* 10*s.* per fm.; worth 5*l.* per fm. for tin. The 90, west of incline shaft, is driving favourably, at 4*l.* 10*s.* per fm.; worth 6*l.* per fm. for tin. The 80, west of incline shaft, is driving at 4*l.* 10*s.* per fm.; worth 5*l.* per fm. for tin. The 60, west of incline shaft, is driving at 7*l.* per fm.; worth 6*l.* per fm. for tin. The next general meeting of the adventurers will be held on Monday, 24th inst. We intend selling the tin on Saturday next, 22d inst., when we hope to get about 13 tons, and we shall sample the copper ore on Tuesday next, when we shall be able to give a rough estimate of its value on Saturday next. The water at No. 3 shaft is gone down this week. The lode in the 48 east is of a kindly character, worth 2*l.* per fm. for copper ore. The lode in the 48 west is 1 ft. wide, of a promising character; worth 4*l.* per fm. for copper ore. The lode in the winze sinking below the 48, east of cross-cut, is disordered by elvans, and poor at present. The lode in the winze sinking below the 48, west of cross-cut, is 10 in. wide, of a more promising character. The new engine-shaft is sunk 5 fms. from surface.

YARNER.—R. Barkell, March 19: In the winze sinking below the 20 we have a kindly lode, producing saving work; this looks well for the ore holding up in the back of the 30. The winze sinking below the 30 is also producing saving work. The two stopes in the back of the 30 are yielding the one 3 and the other 5 tons per fm. We have still an orey lode in the 30 west, but not so good as it has been; end rather tight and wet. The cross-cut at the 40 is in 5 feet here; we have cut several small branches, and the ground is congenial for copper. We hope to cut the lode shortly. The 40 west continues much the same as for some time past. Our dressing is progressing favourably, and we hope to get a good sampling by the end of the end of the two months. The masons are being about the engine-house, and some parts of the engine are already on the mine. We intend to get home the cylinder to-morrow.

EXCAVATING MACHINERY.—An invention has been patented by Mr. J. Hemingway, of Robert Town, York, which relates to a machine intended to assist the working, and to facilitate the working of coal, Cannel, ironstone, fire-clay, and other minerals, and consists of a series of drills arranged in a suitable frame, and driven simultaneously by steam or other power, or by manual labour. These drills are furnished with cutters of various dimensions and different shapes, to suit the particular material to be operated upon, and are to be employed for the purpose of making either horizontal, oblique, or perpendicular cuttings, called bearings or under-cuttings. The drills may be applied and worked in any number which may be found expedient and most convenient, and their action may be regulated at the pleasure of the person working, the machine. The machine may be applied to the driving of headings or straight work as well as to the working of coal or other minerals, by making suitable slight variations in the mode of application.

AN ECONOMIC IMPROVEMENT.—The cupola used at the smelting-works in the further separation of copper from the second-class slag, has been taken down and rebuilt in a very substantial manner. A great saving has been made in the cost of running the engine used in driving the blowing apparatus of the cupola. Formerly it was situated in another part of the building, the steam being generated in a boiler placed horizontally on a furnace constructed solely for that purpose. The improvement consists in placing the boiler vertically on the top of the cupola, the surplus heat of which is more than sufficient to generate the steam required to propel the engine, thus doing away with the boiler-furnace, and saving the fuel which has hitherto been used for that purpose. Another item of importance is, the smoke of the coal burned is nearly, if not quite, consumed, which if it were not thus disposed of would require a much taller chimney than is now used. The Messrs. Williams and Brigham, we are happy to say, are determined to leave nothing undone which will cheapen the cost of smelting and refining, or advance the interests of the company.—*Lake Superior Mining Gazette.*

LIVERPOOL CLIPPERS—EXTRAORDINARY PASSAGE.—We have just received intelligence of the arrival at Melbourne of the celebrated Liverpool clipper, *Chariot of Fame*, in 67 days; this vessel belongs to Messrs. H. T. Wilson and Chambers' White Star Line of Australian ex-royal mail clippers, and has justified general expectation as to her wonderful speed, having eclipsed, by one or two days, the previous celebrated runs of the *Red Jacket*, *White Star*, and *Blue Jacket*, belonging to the same line, being the fastest passage, with one exception, ever made between Liverpool and Melbourne by any sailing ship. This firm have now three magnificent vessels on the berth for Melbourne, well worthy the attention of intending emigrants—namely, the *Great Australia*, to sail April 20, the *Elizabeth A. Bright*, May 20, and the *Queen of the North*, June 20, all clippers of immense proportions, and completely and efficiently equipped for the accommodation of all classes of passengers.

THAMES TUNNEL COMPANY.—Receipts for the week ending March 15, 64*l.* 6*s.* 5*d.*; number of passengers, 15,437.

LONDON GENERAL OMNIBUS COMPANY.—The traffic receipts for the week ending March 16 was 10,405*l.* 12*s.* 10*d.*

QUICKSILVER.

The total production of quicksilver in California during 1861 was 45,023 flasks of 75 lbs. each, Spanish weight, from these sources:—

From the New Almaden Mine ..... Flasks	32,205
From the New Idria Mine	7,961
From the Enriqueta Mine	2,307
From the Gaudaloupe Mine	2,550
Total in 1861, from the four mines worked	45,023
Exports in 1861 ..... Flasks	35,995
Stock on Jan 1, 1862 (in excess of stock Jan. 1, 1861), estimated at....	1,050= 37,045
Showing consumption in California ..... Flasks	7,978

Or an average of about 665 flasks per month. From the above exhibit, it is considered that the demand has been equal to the supply, and also that a market could be found for a much greater yield. At the close of the year the price is given at 40 cents for export, or $30 for flasks of 75 lbs. The value of the exports of quicksilver in 1861 is given at $1,079,850. Statement of the exports of quicksilver from San Francisco during the four years named:—

	1858.	1859.	1860.	1861.
To New York and Boston	3,559	250	400	600
To Great Britain	900	—	—	2,500
To Australia	—	325	100	1,850
To China	4,132	1,068	2,715	13,788
To Peru	2,000	571	750	2,804
To Mexico	12,901	103	3,886	12,061
Total	23,492	1,417	7,851	33,603
Other countries	640	1,982	1,497	2,392
Total	24,132	3,399	9,348	35,995

The 2392 flasks to "other countries" in 1861 consist as follows:—Valparaiso, 2059; Central America, 110; Panama, 57; Vancouver Island, 116; Japan, 50. In the tables from which we copy, the export to "other countries" is stated at 454 flasks in 1858, and 1082 in 1859, which we have changed, as above to harmonise the totals. The total exports to all countries in 1855 is stated at 27,165 flasks; in 1856, 23,740.

—*United States Railroad and Mining Register*, March 1.

THE INTERNATIONAL EXHIBITION.

In Class I. (the department for mining, quarrying, metallurgy, and mineral products, which is under the management of Mr. Robert Hunt, F.R.S.) we shall have a very large and important collection, although the commercial motive to exhibit is weaker than in any other class. The transport of the specimens has been costly, and few of the exhibitors can expect any reward except thanks for having contributed to an instructive and interesting collection. The National Committee for this class drew up a scheme, with the view of suggesting, to some extent, the nature of the objects which it was thought desirable should be exhibited in this department of the Exhibition.

The committee suggested the desirability of keeping the size of mineral specimens within moderate limits, as being more convenient for display, and better adapted for exhibiting special peculiarities than unwieldy masses. This did not, of course, apply to any remarkable examples, such as sections of lodes, or peculiar and illustrative phenomena. They also recommend that were building stones were exhibited in the form of cubes, the uniform size of 8 in. should be preserved, and it was deemed essential that two surfaces of the cube should be left in the natural state—undressed. These and all mineral specimens are to have labels attached, carefully giving the locality from which they were obtained, and, if possible, the geological formation to which they belong.

This large and complete collection is to be chiefly placed in the eastern annexe, as a companion to the show of agricultural implements. The court is to be largely fitted up with ornamental marbles.

The lead hills of Lanarkshire, says Mr. Hunt, once the scene of a wild rush after gold, and always a district producing rare materials, have sent a series of their treasures. Lead ores and their products have come from Durham, Northumberland, and Cumberland. The mountain limestone regions of Yorkshire have furnished lead and copper, and Cardiganshire and Flintshire exhibit varieties of their galenas and blendes. The local committees of Exeter, Tavistock, and Redruth have carefully looked up the more remarkable examples of the minerals of Devonshire and Cornwall. That tin ore which has been worked in Cornwall and on Dartmoor for more than two thousand years, and which is now being obtained at the rate of 10,000 tons per annum, will be shown as obtained from the stream and from the mine. Several varieties of copper ore, many of rich argentiferous lead ores of the West, the zinc ores of these counties, and sulphur ores (iron pyrites), and many others not quite so important, but remarkable as being rare, are also amongst the illustrations of Nature's bounty to us. Ireland, too, sends over her lead, copper, and pyritic ores.

Although the Exhibition of 1862 will not exhibit such a complete collection of iron ores as the industry of Mr. S. Blackwell, brought together in 1851, yet most of the new discoveries—and they are many and important—will find a place. The iron ores of Weardale, those of Cleveland, and the recent discoveries of the West Riding of Yorkshire, the remarkable deposits of Lincolnshire, those of the Midland Counties, and the best examples from Somerset, Devon, and Cornwall, will form an interesting series.

Coal specimens are abundant. There is scarcely a useful seam from which an example has not been sent. In 1851 there were some gigantic blocks, many of them of little interest, but cubical pieces of about 18 in. are now the rule.

The building and ornamental stones of the kingdom are fully represented. The sandstones of the coal measures of the North; the dolomites of Yorkshire and the neighbouring counties; the liassic limestones; the oolites, especially those from the neighbourhood of Bath; Portland stone, Purbeck marble, Stonesfield slates, and numerous other varieties, illustrate our richness in constructive materials.

In metallurgy, the examples of iron are numerous, and, at the same time, as nearly all varieties of pig-iron will be found in the Exhibition, there will be some of the most remarkable examples of rolled iron that have ever yet been shown. Rails from 60 to 100 ft. in length, without a weld; bars of remarkable size and length; sheets of iron of most unusual dimensions; and armour plates which have resisted the battering power of Armstrong's guns, will be there. Cranks, one weighing above 25 tons, and beams of singular size and strength, will prove the capabilities of British forges.

The specimens of gold from Devonshire and Wales will probably be general objects of interest. Two monolithic obelisks, belonging to this department, are erected as trophies in the nave—one made of Cheesewring granite, 27 ft. high, after the design of Mr. John Bell; the other made of grey granite from the Ross of Mull, 35 ft. high. In the mineral court there will also be a beautiful serpentine obelisk, 50 ft. high; and a fine collection of Derbyshire spars, principally black marble, the celebrated fluor-spar being nearly exhausted. Mr. Birley has sent a richly inlaid table, that may be regarded as a perfect work of art.

The only metal exhibited which has become an article of commerce since 1851 is aluminium; and of this there are numerous specimens, both manufactured and unmanufactured. This metal cost 55*l.* sterling per lb. in 1854; in 1858 it was reduced to 5*l.* a ton; and now, we believe, it may be obtained at a much lower rate. It has a fine white colour, slightly inclining to blue, especially after being well hammered; when cold, like silver, it is susceptible of a very fine matting, is easily burnished, or polished, or drawn into wire, and can easily be beaten out, either hot or cold, to the same extent and as perfectly as gold and silver. It is much lighter than ordinary metals; its elasticity and and tenacity are about the same as those qualities in silver, and it is easily run into sand and metallic moulds. Perphaps the most generally interesting objects in the mineral department will be the mines, set in motion by water-power, showing every feature of this underground branch model of the celebrated Barrow works near Ulverstone, and some working models of industry.

GOVERNMENT INSPECTION OF COAL MINES.—We understand that Mr. Richard Horton Wynne, of Hulton Colliery, Manchester, is a candidate for the office of Inspector for the East Scotland District, rendered vacant by the death of Mr. Williams. Mr. Mark Fryar, the teacher of mining at the Andersonian University of Glasgow, and formerly teacher in the Bristol Mining School, is also a candidate.

INSPECTION OF METALLIFEROUS MINES.—The Commissioners appointed to enquire into the condition of all mines not under the Coal Inspection Act have appointed Mr. R. Temple their secretary. The formal instructions from the Home Office have now been received.

SLATE QUARRYING IN NORTH WALES.—For some time past the enormous profits derived by the slate quarry proprietors of North Wales have attracted the attention of capitalists in various parts of the country, and an opportunity is now offered for those of moderate means to acquire an interest in one of these undertakings. The Dulas Slate and Slab Company, with a capital of 25,000*l.*, in shares of 2*l.* each, is now introduced to the public, and the reports upon it by eminent quarry managers and quarry engineers are of the most encouraging character. The quarry is situated on the junction of the Dovey and the Dulas rivers, only three miles north-east of Machynlleth, within a couple of miles of the Newtown and Machynlleth railway, and on the high road to Dolgelly. It is intended, in the first instance, to work eight bargains on the top rock, and eight in the lower slate, and from carefully-made estimates, furnished by Mr. C. E. Spooner, the well-known engineer of Brin-y-Garth, from which it appears that with an outlay of 9228*l.* 8s. 8d., there will be a production of slate worth 10,869*l.* 12s., leaving a net profit of 1641*l.* 3s. 4d. The company will acquire the property for 7000*l.*, of which 4000*l.* is to be in paid-up shares. The undertaking has also been favourably reported upon by Messrs. T. S. Nicholls, Wm. Rowlands, T. A. Hine, J. G. Jones, John Hughes, Evan Jones, and David Davies. The extent to which the trade is carried on in this district may readily be judged of by a reference to the particulars of the meeting of slate quarry proprietors, held at Bangor in November, when it was agreed to advance the price 10 per cent. It has been calculated that any increase which may take place in the production of slate in the principality during the next ten years would not supply the present annual demand. It is fully anticipated that large demands for Welsh slates will spring up in France, and the demand in all our large towns and cities for roofing and slab slates exceeds anything before known. Already the export of slates from Port Madoc reaches to about 60,000 tons per annum, the value of which, in round numbers, may be put down at 135,000*l.* This is a large sum, when it is remembered that Festiniog, a short time since, produced nothing but a few head of cattle. Since this meeting, the price of slate has been fully maintained, and there is every prospect of still higher prices than at present being obtained.

GIGANTIC ANVIL.—An immense anvil has been cast for the Mersey Steel and Iron Company by Messrs. Fawcett, Preston, and Co., the Phœnix Foundry, Liverpool. The anvil is one of the largest that have been cast in this country, 40 tons of metal—the produce of two large air-furnaces, each containing about 18 tons of metal and two cupolas—being used in the casting.

YELLOW METAL SHEATHING.—Mr. A. Parkes, Birmingham, proposes to improve the quality of yellow metal sheathing, by adding from ⅛ to 2 per cent. of tin or aluminium thereto.

*** With this week's Journal we give a SUPPLEMENT SHEET, which contains papers on—Penetrating Dangerous Gases—Geological Formation of the Earth (with engravings)—the Principles of Geology.—Reviews: "Down South: an Englishman's Experience at the Seat of War;" "The Famine in the West: being an Enquiry into Causes of the Crisis impending in the West of Ireland."—The Evidence of Mr. J. Kenyon Blackwell on the Gethin Colliery Explosion—the Australasian Mining Intelligence—the Mining District in which East Wheal Seton is situated (with plan)—Meeting of the North Laxey Mining Company.

*** With the MINING JOURNAL of March 1 we gave a SUPPLEMENT, which contains:—Steam Regenerators (with Engraving)—The Geological Formation of the Earth—England's Position: the Miners, Mining Schools, and Chemistry—The Principles of Geology—Heat-Conducting Powers of Amalgams—What is Good Iron, and How is it to be Got?—On the Impurities of Commercial Zinc—Wicklow Copper Mining Company—Glan-y-Pwll Slate and Slab Company—Great Wheal Martha Mining Company—Pendeen Consolidated Mining Company—Successful Mining—Wilds' Ventilator—New Gold Mining Machinery—Plan of the Seton District: Map showing the Relative Position of the Seton Mines, and others adjoining.

*** In a SUPPLEMENT to the Journal of Feb. 22 was published the paper read by Mr. Salmon at the Society of Arts, on the Relative Merits of the Different Systems of Working Metallic Mines and Collieries. The Supplement also contained a Plan and Description of the Seton District—a Review of Mr. Makins' "Science of Metallurgy"—the meeting at Wheal Grylls on starting the steam-stamping machinery—the news from Australia—the Quarterly Returns of the Sales of Black Tin and Lead—the Mills and Forges in South Staffordshire—Statistics of Colliery Accidents, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, March 21, 1862.

COPPER.	£ s. d.
Best selected....p. ton	101 0 0– —
Tough cake..... "	98 0 0– —
Tile ..... "	98 0 0– —
Burra Burra .... "	96 0 0–97 0 0
Coplapo ..... "	— – –
Copper wire .....p. lb.	0 1 0½– —
ditto tubes ..... "	0 1 1 – —
Sheathing & bolts .. "	0 0 11 – —
Bottoms ..... "	0 1 0 – —
Old (Exchange) .... "	0 0 9½– —

IRON.	Per Ton.
Bars, Welsh, in London..	6 5 0– —
Ditto, to arrive	5 17 6– 6 0 0
Nail rods	7 0 0– —
" Stafford. in London	7 0 0– 7 10 0
Bars ditto	7 5 0– 8 0 0
Hoops ditto	8 10 0– 9 0 0
Sheets, single	9 0 0– 9 10 0
Pig, No. 1, in Wales ..	3 0 0– 4 0 0
Refined metal, ditto....	4 0 0– 5 0 0
Bars, common, ditto....	5 0 0– —
Ditto, merchant, in Tees	6 10 0– —
Ditto, railway, in Wales	5 5 0– —
Ditto, Swed. in London.	11 10 0–12 0 0
To arrive	11 10 0– —
Pig, No. 1, in Clyde....	2 8 0– 2 18 0
Ditto, f. o. b. in Tees ..	— – – —
Ditto, forge, f.o.b. in Tees	— – – —
Staffordshire Forge Pig.	3 10 0– 3 12 6
Welsh Forge Pig	— – – —

LEAD.	
English Pig	19 15 0–21 0 0
Ditto sheet	21 0 0– —
Ditto red lead	21 10 0–21 15 0
Ditto white	28 10 0–30 0 0
Ditto patent shot	22 10 0–23 0 0
Spanish	18 15 0–19 0 0

BRASS.	Per. lb.
Sheets	10d.–11d.
Wire	9½d.–9¾d.
Tubes	11d.–12½d.

FOREIGN STEEL.	Per Ton.
Swedish, in kegs (rolled)	— – –
" (hammered).	15 10 0–16 0 0
Ditto, in faggots	17 10 0–18 0 0
English, Spring	18 0 0–23 0 0
Bessemer's, Engineers Tool	44 0 0– —
" Spindle	30 0 0– —
QUICKSILVER	7 0 0 p. bottle

SPELTER.	Per Ton.
Foreign	18 10 0–
To arrive	18 10 0–18 12 6

ZINC.	
In sheets	23 0 0– —

TIN.	
English, blocks 120	0 0– —
Ditto, Bars (in barrels)..121	0 0– —
Ditto, Refined 122	0 0– —
Banca 124	0 0–125 0 0
Straits 117	0 0–118 0 0

TIN-PLATES.*	
IC Charcoal, 1st qua. p. bx.	1 8 0– 1 9 0
IX Ditto 1st quality "	1 14 0– 1 15 0
IC Ditto 2d quality "	1 4 6– 1 6 6
IX Ditto 2d quality "	1 11 0– 1 13 0
IC Coke ..... "	1 2 6– —
IX Ditto..... "	1 8 6– —
Canada plates ....p. ton	12 10 0–13 0 0

In London; 20s. less at the works.

Yellow Metal Sheathing .... p. lb.	9d.
Indian Charcoal Pigs in London	6 12 6– 6 15 0

* At the works, 1s. to 1s. 6d. per box less.

REMARKS.—Our market exhibited great dulness at the commencement of the week, but has sensibly improved during the last few days, and something like animation is once more visible in some branches of the trade. It is greatly to be hoped that this present impetus will not prove merely of temporary duration, like the many brief periods of activity which have of late characterised the metal market, but will be permanent, and really benefit the trade generally.

COPPER.—During the last few days our market for English descriptions has again further stiffened, sellers in many instances now ask full rates, and we hear of sales of manufactured at only ¼d. per lb. under. Cake, tile, and ingot is held for 96*l.*, and it is not unlikely higher rates may shortly be quoted. Foreign has also improved in price, and the demand much better.—Burra Burra can now be sold to some extent at 96*l.* to 96*l.* 10s.; a single transaction of 50 tons is reported at 97*l.* Kapunda, 98*l.*; Chili, 90*l.* (nominal); Spanish, 90*l.* Yellow metal continues in fair request, and prices have advanced about ¼d. per lb. No sellers now under 8¾d.

IRON.—An improved demand exists for railway bars, most of the ironmasters are now well supplied with orders for this description of work, and more favourable rates are obtainable. Merchant bars are rather less enquired for; the price remains easy at 5*l.* 15s. to 5*l.* 17s. 6d., f.o.b. in London, or 5*l.* at the works. Staffordshire makes, though still dull, are slowly increasing in demand. Best brands only are enquired for at present—quotations unaltered. Swedish bars are in fair request, and prices tolerably steady. Good specifications quoted 11*l.* 10s., ex warehouse. The navigation in Sweden has not yet opened sufficiently to permit of shipments taking place. Scotch pigs during the week have touched 49s. 6d. for mixed numbers, since which they have been easier; market closing to-day at 49s. 4½d. to 49s. 6d.

SPELTER.—This metal continues to exhibit an upward tendency, and prices have advanced since our last report about 12s. 6d. to 15s. per ton; holders now asking 18*l.* 10s., cash. A large business has been done during the week at prices ranging from 17*l.* 15s. to 18*l.* 7s. 6d. Purchases chiefly of a speculative character, prompted by the improved tone of the market in Hamburg, and the increasing demand for France. Indian accounts are still very unfavourable. ZINC very firm at 23*l.*

LEAD.—The market for English pig is very dull, and sellers find it difficult to obtain orders for ordinary soft qualities even at 19*l.* 15s. WB is quoted 21*l.* 5s. Other descriptions are in very limited request. Spanish pig, 18*l.* 15s. to 19*l.*

TIN.—There is a fair demand for English descriptions; selling prices are, however, scarcely equal to quoted rates. Foreign is firmer. Fine Straits sold at 117*l.*, cash. Banca, 124*l.*

TIN-PLATES.—Unaltered since our last. Large shipments continue to be made to the United States.

STEEL.—No sales of importance have been effected, and the market wears a steady, but quiet, appearance.

TIN TRADE.—The price of Tin has again fallen 2*l.* per ton on the standard. The smelters, it would appear, are lowering the price at present, so as to obtain large stocks at a low price to compete with the new Tin Smelting Company. Prices will, no doubt, range high, so soon as the new company commences operations. Shareholders in tin mines should not be alarmed at the drop, for the price of tin must go higher, and the object of the present drop is very apparent.

COAL MARKET.—On Monday the arrival of 205 fresh ships, with a large proportion of house coal, caused a slight reduction in prices, but a large sale was made. Hartley's fully maintained the advance quoted on Friday. Manufacturers' dull, and without alteration in value. Best house coals, 15s. 6d. to 16s. 6d.; seconds, 13s. to 14s. 6d.; Hartley's, 13s. to 15s.; manufacturers', 11s. to 13s. 6d. per ton.—On Wednesday only 11 ships arrived. The market was quiet for all descriptions of coal, at last prices. —On Friday there were 86 arrivals. The cold, stormy weather improved the market for house coals, and several sorts rose 3d. per ton in price. Hartley's were in full supply, and 3d. per ton lower. Manufacturers' without change. Hetton Wallsend, 16s. 9d.; South Hetton Wallsend, 16s. 6d.; Braddyll's Hetton Wallsend, 15s. 9d.; Eden Main, 14s. 6d.; Hartley's, 13s. to 14s. 6d.; manufacturers', 11s. to 13s. 6d. per ton: 50 cargoes unsold; 25 ships at sea.

EXPORTS OF COAL.—By the Monthly Circular of Messrs. Laird, we learn that the quantities of coal exported during Feb. was 590,782 tons, against 413,908 tons in the corresponding month of 1861, showing an increase of 176,874 tons. The particulars are—From the Northern ports, 318,903 tons; Yorkshire, 12,929 tons; Liverpool, 47,921 tons; Severn ports, 175,497 tons; and Scotch, 35,532 tons. There was an increase at all the ports except the Yorkshire and Liverpool, where the decrease was 3189 tons. Total exports, January and February:—1,044,037 tons, against 798,918 tons in the same period of 1861, being an increase of 245,119 tons.

CONTRACT FOR COAL.—The Grand Russian Railway Company require the supply of 41,600 tons of large Coal, for railway-engines.

A very large amount of business has been transacted this week in the MINING SHARE MARKET, and great activity still prevails. In some of the favourite mines there have been greater fluctuations than usual, and one or two attempts have also been made to put down prices, but the bona fide demand on the part of the investing public has been too strong for any market operations. Tin, we are sorry to say, has again fallen, and one or two tin mines which were in good demand have, in consequence, rather declined in prices during the last day or two. Possibly, if Earl Russell is right in his prognostication respecting the early settlement of the civil war in America, we may in a few months have our best market for metals again open to us, and see tin at its old and remunerative prices. Certain it is that with such an abundance of money unemployed, and with the daily increasing attention paid to sound English mining undertakings, the settlement of the American question will be of the greatest benefit to the mining market. East Caradon shares leave off 33¼ to 34; the price during the week has been as high as 34, 34½, and as low as 32, 32½, with great and sudden changes daily, but during the whole time the orders for investment on the market absorbed the stock as fast as it was offered by speculators or dealers. The latest report values the 50 east at 75*l.* to 80*l.* per fathom for the breadth carried; the 60 east is worth 55*l.* per fm.; the new lode, in the 60 west, is worth 20*l.* per fm.; the 60 east is worth 12*l.* per fathom; Fawcett's lode, in the 60 east, is worth 12*l.* per fathom. Merlyn Valley shares have fluctuated with East Caradons, but leave off firmer at 10 to 10½; the mine is looking better, and one or two good points in operation, which may cause a rise in a month or two. Providence Mines shares have been largely dealt in at 42½ to 43¾, and leave off not quite firm at 42 to 43, owing to the fall in tin. Wheal Margaret shares also, from the same cause, leave off flatter at 44 to 46. West Seton shares are better at 270 to 280. South Frances shares have been greatly in request, and the price advanced from 95 to 112½, but left off 102½ to 107½; in driving the 54 cross-cut, north of Pascoe's or western shaft, the new north part of the lode has been intersected, and reported by the agents, on the 15th, as worth 3 tons of copper ore per fm. There is also a strong feeling abroad that the suit with West Basset is progressing favourably for South Frances, and which gave increased strength to the market. West Basset shares, which have been for some time flat, experienced a little activity on Thursday, and rose from 11¼ to 12½, 13¼; in the 114 cross-cut, in the western part of the mine, the lode has been cut into 2½ ft., the first 1½ ft. producing 2 tons of good yellow ore per fathom. The ground is very wet and rather hard for driving, and it will take some days to ascertain the size and value of the lode. Wheal Trelawny, 17½ to 17¾. Wheal Kitty (Lelant) shares have further advanced to 13½, 14. East Carn Brea shares have been particularly firm and in demand all the week, and leave off 13¼ to 13¾; the 50 west is reported worth 3 tons per fathom, worth 8*l.* per ton; in the 50 east the lode is divided by a horse of killas; the 40 east is worth 2 tons, or 16*l.*, per fathom; the 30 west is worth 2 tons, or 14*l.* per fathom; the winze below the 26 has improved to 8 tons of ore per fathom; the winze below the 40 is worth 2 tons, or 14*l.*, per fm. Wheal Union, 2¾ to 2⅞; Clifford Amalgamated, 29 to 31; Carn Camborne, 13½ to 14s.; Cook's Kitchen, 31 to 32.

South Caradon shares have been enquired for, and leave off 325 to 335. Wheal Setons are firmer, and in greater request, at 126 to 128. Drake Walls have advanced to 23s., 25s.; the lode in the 102, east of Matthews' shaft, continues worth 30*l.* per fm., and the ground appears to be changing for the better. Rosewall Hill and Ransom declined after our last to 3⅞, 3⅝, on a report that the tin had cut out; but again rallied, and leave off of 3¾ to 4¼. We have not received our usual report this week. Devon Great Consols have been in good request, and advanced to 41¾, 41⅞. Craddock Moor, 29 to 31; East Basset, 44 to 46; East Russell, 2¾ to 2⅞. Grambler and St. Aubyn, 15 to 17½; Great Caradon, ⅞ to 1; Great Seton, Tolgus, 3 to 3¼. Great Wheal Fortune advanced to 18, and leave off 17½ to 18. Herodsfoot, 36 to 37; Hingston Down, 2½ to 2¾; Lady Bertha, 15s. to 17s. Merlyn have advanced to 15s., 20s.; on the 8th inst., when the shares were at a mere nominal price of 5s., we called attention to the clearing out of the old shaft, on the north and south lode, and the cross-cut in the 20, to intersect the same lode; and on Thursday the agent wrote they have cleared the old shaft, which is 10 fms. deep, and find good ore and also that he had cut into the lode 20 fathoms deep, with good stones of solid ore, but it will take some days to cut through the lode, and ascertain its real value. He adds to the report, however, that he "has not a single doubt on his mind but that he will soon be able to raise ore in sufficient quantities to make it a profitable mine to the company." A few years ago, one bunch of ore in this mine yielded the company about 40,000*l.* and paid 7500*l.* in dividends in about a year. The present discovery is another part of the sett. New Seton, 55 to 60; North Basset, 3¾ to 4; North Crofty, 36s. to 38s.; North Downs, 4¾ to 5¼; North Roskear, 22½ to 23¼. Gonamena shares, which a short time ago were favourites in the market at 3*l.* per share, have lately been at a mere nominal price, as for some months past the operations have been confined to holing the new shaft with the rise above the 58; this has now been effected, and is in communication with the bottom of the mine, in the 90. Here, we are informed, there is ore ground in the bottom, and also in several of the lodes, which it is expected may be taken away at a cheap rate in a few months. Kenwick Mining Company, 15s. to 20s.; at the meeting, on Thursday, a call of 2s. per share was made to clear off the defalcations of the late secretary. The mine is now returning about 300*l.* worth of lead per month, and paying its way, with good prospects of doing better. North Treskerby, 18¾ to 19¼; Prosper United, 3 to 3¼. Rosewarne shares have declined to 25, 27½, and the lode not looking so well.

Sortridge Consols, 9s. 6d. to 10s. 6d.; South Basset, 11 to 12; South Tolgus, 52 to 54; Stray Park, 30 to 31; Tamar Consols, 29s. to 31s.; Tincroft, 10½ to 11.; Tolvadden, 3 to 3¼; Trencrom, 3¼ to 4; Wendron Consols, 12½ to 13; West Caradon, 40 to 41; West Frances, 10 to 12½. West Polmear shares not quite so firm, at 4s. to 5s. West Rose Downs, 14 to 15. Wheal Grenville shares have been firm and in request all the week, and a large business done. The price leaves off 54s. to 56s.; the last report valued the 110 end at 25*l.* per fm., and a rise commenced from this level also worth 25*l.* per fm. The 100 fm. level is worth 1 ton per fathom. The lode in the 80 cross-cut appears not to have been taken down for some time. East Grenville shares have been flatter, and leave off 30s. to 32s. The late improvements, both in South Frances and West Basset, are in the western ground, near East Grenville. South Caradon Wheal Hooper shares have been very largely dealt in, and great numbers of them taken off the market for investment; they leave off 20s. to 21s. A few weeks ago we called particular attention to the situation of this mine adjoining East and South Caradon, and stated that a winze would soon be commenced from the 62, and this is now sinking in good ore, and the agent says the 62 end west is also looking better, and he "should not be surprised at having a good discovery any day." The cross-cut, also, towards the lode in the 90, is in easier ground. West Tolgus, 27½ to 30. Wheal Trevelyan, 1½ to 2; this mine is improving, and may shortly advance considerably. Wheal Basset, 99 to 101; Wheal Ludcott, 3¼ to 3½; Wheal Unity, 14s. to 16s.; no lode taken down in the 50 north and 75, but lode daily expected to be cut in the 50 south. Great Retallack, 11s. to 13s. Redmoor, 4s. to 5s.; the mine will shortly sell 30 tons of good copper ore in addition to 3 or 4 tons of tin. Wheal Uny, 4¼ to 5½; Cwm Erlis, 20 to 21. West Condurrow, owing to a clerical error, was quoted last week as "Caradon." The lode in the 24, under the elvan, is worth 10*l.* to 12*l.* per fm. The winze under the 12 is worth 70*l.* per fm. On the 18th tinstuff sold for 123*l.* 10s. Wheal Grylls shares have advanced this week to 17, 18; the lode in Annie's engine-shaft is now down to the 30, and we hear that it is worth 35*l.* per fm., or 70*l.* for length of shaft. A winze has just been commenced from the 20 to the 30, worth 25*l.* per fm. On Georgia lode, in driving the adit in the 40, the lode is worth 30*l.* per fm. The rise above the same level is worth 30*l.* per fm. The calciner will be ready in about a month. Wheal Arthur, 15s. to 16s.; the mine is looking better, and a course of ore expected in a rise above the 50, as it is getting into the gossan ground.

On the Stock Exchange an average amount of business has been transacted in Mining Shares during the week. The following prices were officially recorded in British Mining Shares:—East Basset, 46, 45, 44½; East Caradon, 33, 33¾, 33¼, 33⅜; Wheal Grenville, 2½; North Downs, 4¾, 4⅞, 5; East Carn Brea, 12½, 11⅞, 12½, 12, 12¾, 12⅜; Great Wheal Vor, 7⅛, 7¼, 7⅛; West Caradon, 40½; Marke Valley, 10; West Basset,

…t, 12⅞, 12⅞, 12⅞, 13¼; Wheal Kitty, 12½. In Colonial Mining Shares the prices were:—Great Northern Copper of South Australia, 1, 1⅛, 1⅛; …rt Phillip, 1, ¾, ⅞, 1, 1⅛, 1; Scottish Australian, 2⅛, 2⅛, 2⅛; Kapunda, 2⅛; North Rhine Copper of South Australia, ⅜, ½; Dun Mountain, 1, 1⅛; Worthing, ⅛. In Foreign Mining Shares the prices were:—Lusitanian, ⅜; Santa Barbara, ⅛; United Mexican, 7⅛, 7⅛, 7⅛; Fortuna, 3¼, 3¼, 3⅛; Capula, ⅛; St. John del Rey, 60¾, 61, 60, 58, 59½, 58½, 59½.

The closing quotations for shares in new undertakings were:—Ocean Marine, 7⅛, 7⅛, prem.; Thames and Mersey Marine, 1 11-16 to 1 13-16 prem.; Universal Marine, 2⅛, 2⅛ dis., being firmer; London and Provincial Marine, par to ⅛ prem.; Mercantile Fire, ⅛, ⅜ prem.; Commercial Union, ⅛, ⅛ dis.; Alliance Bank of London and Liverpool, 3⅛, 4 prem.; Rio Improvements, ⅛, ⅜ prem., being firmer; ditto paid-up shares, 1⅛, 1⅛ pm. Transactions were also quoted in Santa Barbara Gold Mining Shares at 5-16 to 5-16 prem.; Don Pedro North del Rey, 1-16 to 3 1-16 prem.; Old Cardigan Consols, ⅛, ⅛ prem. East Clogau, 1-16 to 3-16 prem.; and Montes Aureos, ⅛ dis. to ⅛ prem.

IRISH MINE SHARE MARKET.—Mining shares were in considerable favour this week, with a steady tendency to improvement in prices. Wicklow Copper shares, which closed last week at 51*l.*, sellers, exchanged hands at 50*l.* 10s., but all that are offered at 50*l.* 15s. are readily taken, sellers demanding 51*l.* The shares of the Mining Company of Ireland have been particularly steady, with an improvement of 5s. on last price, or at 19*l.* 5s. for cash, and 19*l.* 7s. 6d. for next account. Carysfort shares, which last week were procurable at 9s. 6d., have gradually risen to 11s., 11s. 6d., and 12s., and some of the free shares of this company, fully (at 2*l.* 10s. per share) paid up, have been sold at 1*l.* 5s. and 1*l.* 7s. 6d. per share, or at a discount of 50 per cent. Connorree shares have changed hands, and are still on sale at 32s. In General Mining Company for Ireland shares no business has been done. The adjourned extraordinary general meeting of the Wicklow Copper Mining Company was held on Tuesday last, to receive the report of the committee appointed to make the same with reference to the practicability of the proposed amalgamation with the Hibernian Mining Company. The Chairman (Mr. John Barton) stated the committee had held several meetings, and had, he trusted, made considerable progress towards solving the points raised by the shareholders at their last meeting. The committee had laid before counsel the circumstances upon which the respective companies are placed, in order to obtain his advice upon the legal questions. Those who differ from the views taken by them had also laid before their counsel (the Solicitor-General) a statement of their case. They had only recently received the two counsels' opinions, and he was sorry to say they were of a very conflicting character, therefore the committee were not in a position to give a decisive report. Under the circumstances, he could only suggest that this meeting be adjourned for (say) ten days, by which time he hoped a satisfactory report could be laid before the shareholders. On the motion of Mr. James Haughton, seconded by Mr. Joseph Hone, it was resolved that the meeting stand adjourned to Saturday, the 29th inst. In another column of this day's Journal we give a review of a very interesting pamphlet, just published by Mr. W. Ansell Gray, "On the Famine in the West," being an enquiry into the causes of the crisis impending in the Western Districts of Ireland, and to which we would direct the attention of our readers.

At Truro Ticketing, on Thursday, 6205 tons of ore were sold, realising 29,199*l.* 19s. 6d. The particulars of the sale were—Average standard, 9*l.* 12s.; average produce, 5¾; average price per ton, 4*l.* 14s.; quantity of fine copper, 356 tons 18 cwts. The following are the particulars:—

Lots.	Tons.	Standard.	Produce.	Price per ton.	Ore copper.
20.....	3832	£128 19 0	5⅛	£4 5 0	£78 3 0
37.....	2891	125 0 0	6¼	5 1 0	81 0 0
ch 6.....	3036	123 9 0	6⅞	5 13 6	83 3 0
13.....	2607	124 12 0	6¾	5 13 0	83 15 0
20.....	6205	129 5 0	5¾	4 14 0	81 17 0

Compared with the sale of last week, the decline has been in the standard and in the price per ton of ore about 1s. 3d. Compared with the corresponding sale of last month the advance has been in the standard and in the price per ton of ore about 5s.

At the Wheal Jane meeting, on Tuesday, the accounts showed a balance of profit for November and December of 452*l.* 10s. 6d., which added to the credit balance, 608*l.* 7s. 6d., at the last audit, made a total of 1060*l.* 18s. A dividend of 512*l.* (2*l.* per share) was declared, leaving 548*l.* to be carried to the credit of the next account.

At the Great Wheal Vor United Mines meeting, on Wednesday (Mr. J. Noakes in the chair), the accounts made up to date showed a balance of assets of 1477*l.* A dividend of 1477*l.* (5s. per share), was declared, and the sum of 2352*l.* carried to the credit of the next account. Details in another column.

At Wheal Buller meeting, on Tuesday, the accounts showed—Balance audit, 693*l.* 3s. 1d.; copper and tin ores sold, 2373*l.* 6s. 9d.; Copper Hill adventurers number, 1361.=3207*l.* 9s. 10d.—Mine cost, merchants' bills, and sundries, 2351*l.* 6s. 2d.: leaving credit balance, 856*l.* 3s. 8d. The profit on the two months' working was 158*l.* 0s. 7d. It was resolved that Copper Hill adventurers be allowed to take up the three levels driven on their boundary, upon fair compensation being made to Wheal Buller adventurers for the driving and use of levels. Capts. Davey, Johns, and Uren reported upon the various points of operation.

At the North Laxey Mine (adjourned) meeting, on Monday (Mr. W. F. Nicholls in the chair), it was resolved to call a special general meeting, to consider and decide on the best means to raise additional capital, to the extent of about 1000*l.*, for the purpose of opening out of the mine, the expenditure of which sum it was considered would bring it into profitable state. Details will be found in another column.

At the Central Minera Mining Company meeting, on March 11, the directors made a call of 3s. per share.

At the South Wheal Betsy meeting, on Tuesday, the accounts for the three months ending February showed—Balance last audit, 179*l.* 8s. 8d.; mine cost, merchants' bills, and sundries, 125*l.* 1s. 4d.=304*l.* 10s.—Calls received, 26*l.* 15s. 6d.: leaving debit balance, 35*l.* 14s. 6d. Captain Neill reported upon the various points of operation; he thinks the prospects are favourable for meeting with productive lodes.

At the Devon and Cornwall United Mines meeting, on Tuesday, the accounts for the three months ending Feb. showed—Balance last audit, 1636*l.* 16s. 7d.; mine cost, merchants' bills, and sundries, 853*l.* 11s. 10d.=2490*l.* 8s. 5d.—Calls received, 12s.; ore sold and carriage, 196*l.* 14s. 11d.: leaving debit balance, 1112*l.* 8s. 6d. Calls of 5s. per share was made. Captains Neill and Horswill reported that, on the whole, considerable improvement had taken place, and appearances at present are in favour of being open a good mine. They had 87 persons employed underground and at surface.

At Carnyorth Mine meeting, on March 10, the accounts for the three months ending December showed—Balance last audit, 759*l.* 8s. 3d.; mine cost, merchants' bills, and sundries, 2119*l.* 7s. 3d.=2878*l.* 15s. 6d.—Tin sold, 1652*l.* 17s. 3d.; dressing, 13*l.*: leaving debit balance, 1212*l.* 18s. 2d. The loss on the quarter was 446*l.* Capts. Carthew, Trembath, and Wallis reported that they had been stamping and dressing for 11 weeks instead of 13. They have at present at their stamps tin not worth 230*l.* more than they had at the last account.

At Wheal Emily Henrietta meeting, on Monday, the accounts showed calls received, 76*l.*—Balance last audit, 196*l.* 18s. 4d.; mine cost, merchants' bills, and sundries, 524*l.* 9s. 3d.: leaving credit balance, 46*l.* 12s. 5d. A call of 10s. per share was made. Capts. Daw and Harris reported that they consider their present prospects encouraging, and having now ventilated the mine, they are in a position to sink winzes and drive the bottom levels with all speed, where discoveries may be expected.

At the Durlo Mine meeting, on March 11, the accounts for the three months ending January showed—Labour cost and carriage, 1384*l.* 8s. 8d.; merchants' bills and sundries, 606*l.* 3s. 9d.=1990*l.* 12s. 5d.—Balance last audit, 11*l.* 14s. 10d.; tin sold, 1244*l.* 3s. 11d.: leaving debit balance, 734*l.* 13s. 8d. A call of 10s. per share was made. Capts. Blight and Martin reported that they are employing 39 men underground, and 13 pitches, employing 33 men, at an average tribute of 11s. 6d. in 1*l.*, on present price for tin.

At the Aberdovey Silver-Lead Mining Company quarterly meeting, on the motion of (Colonel H. Carr Tate in the chair), the report of Capt. Ede stated that since the last meeting the cross-cut in the 42 had intersected the main lode, which was composed of quartz, peach, blende, and lead ore. No time had been lost in extending on the cross-cut to the east and south, for the purpose of cutting it on the north side of the cross-course, which was met under the rich ore-bearing ground in the levels above. The cross-course had been met with, and he was in daily expectation of meeting with a good lode. The winze sunk under the 32 is now down 2¼ fms., on a large lode, but disordered by the intersection at the cross-course. The stope in the back of the 32, south of shaft, had improved, and was producing ¾ ton per fm., and he was of opinion that when the lode in the 42 had been proved they should also find some rich ore ground south as well as north of the cross-course. The stope north of winze is without alteration. All other points of operations were in favourable progress, and the dressing department was being pushed forward with all speed. The machinery was in excellent working order, and a parcel of 100 tons of ore had been sent to market. A call of 10s. per share was made to provide for the more efficient working of the mine, and a vote of thanks to the Chairman closed the proceedings.

At the Coed Mawr Pool Mine meeting, held at Bucklersbury, on Thursday (Sir Claude E. Scott, Bart., in the chair), the accounts showed—Balance due at the last meeting, 441*l.* 10s. 11d.; cost-sheet for February, 193*l.* 13s. 6d.=635*l.* 4s. 5d. Cash received on call account, 69*l.* 5s.; for working capital shares, 150*l.*; for ore sold, 1s.: leaving a debit balance of 193*l.* 4s. 5d., which was nearly covered by the ore sold since the last sale. But to provide further resources for the extended works it was resolved that a call of 2s. per share be made. The reports read at the meeting encouraging. The drivings had been limited to the new shaft and Fridd junction in preparatory to the commencement of the sinking operations at the boundary and Wasley shafts, for which the arrangements were nearly completed. These will soon be all in full activity, and when down from the 20 to the 30 the drivings are to be extended to 50 fms., thus laying open good runs of ore ground, from which and the produce partially secured, so as to pay costs, leaving the bulk for subsequent stoping operations. This is the plan recommended by Capt. Wasley, and approved by the general meeting of shareholders last week. This company's perseverance and many obstacles, caused by the water encounters, affords another evidence of that indomitable spirit which accomplishes results beyond all ordinary calculation. The difficulties since were most intimidating; they have cost the company many thousands of pounds, and years of time consumed in the struggle. Yet it would appear they have now mastered all difficulties successfully, and the future looks well for the prosperity of the company.

At Cargoll Mine meeting, on March 10, the accounts showed—Balance last audit, 502*l.* 3s. 10d.; lead ores sold, 3170*l.* 19s. 11d.=3672*l.* 19s. 11d.—Mine costs, merchants' bills, and sundries, 3148*l.* 13s. 5d.: leaving credit balance, 524*l.* 6s. 6d. They have 226 persons employed on the mine.

At the Keswick Mining Company meeting, on Thursday, the accounts showed a balance of 478*l.* 17s. 7d. against the mine—the last two months' workings showed a small profit. A call of 2s. per share was made.

At the West Wheal Frances meeting, on March 6, the accounts showed—Balance last audit, 694*l.* 1s. 9d.; Mine cost, November, 253*l.* 5s. 7d., December, 209*l.* 19s.; subsist, 125*l.*; Merchants' bills, 42*l.* 8s. 11d. = 1710*l.* 12s. 3d. Call, 1024*l.*; black tin sold (less dues), 301*l.* 19s. 4d.: leaving debit balance, 384*l.* 12s. 11d. A call of 2*l.* per share was made. The amount included in the cost for new work, masonry, pitwork, &c., was 220*l.*

At the East Alfred Mine meeting, on March 12, the accounts for the three months ending January showed a debit balance of 544*l.* A call of 2s. 7d. per share was made. The copper ore sold amounted to 749*l.*, and the mundic to 44*l.*

At the Great Wheal Martha (special) meeting, on Monday (Mr. T. C. Smith in the chair), a resolution was passed to the effect that 3500 shares of 1*l.* each should be created, and to be offered *pro rata* to the present shareholders, payable by calls of 5s. per share, but with the option to pay up in full, provided such election be made at the time of acceptance of such allotment, and that the directors be empowered to allow a discount of 2s. 6d. per share on all such fully paid-up shares. Details in another column.

At the Wheal Ellen (South Australia) meeting, on Wednesday (Mr. Ferguson in the chair), a special resolution was passed authorising an increase of the company's capital to any amount not exceeding 25,000*l.*, in shares of 1*l.* each, bearing a fixed rate of interest at the rate of 10 per cent. per annum, until such time as two consecutive dividends upon the original capital of the company at the rate of 5 per cent. per annum shall have been paid, after which the preference shares shall be placed upon the same footing as the ordinary shares. Details in another column.

At the Labuan Coal Company meeting, on Monday, the directors made a call of 2*l.* per share.

LEEDS, MARCH 20.—The Mining Share Market continues tolerably active. There has been a moderate amount of business done, shares changing hands freely, but at somewhat low prices.—JOHN GLEDHILL AND CO.

LEEDS, MARCH 20.—During the past week considerable animation has existed in the Mining Market, and a greater disposition to buy; if this continues, higher prices may be expected.—EDWARD BROOK, Mining Broker, 5, Bank-street.

WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In my letter, in last Saturday's Journal, I stated for the week the weather would be dull and unsettled; this prediction, I think your readers will admit, has been verified. The weather will continue unsettled, more or less, to the end of the month, with occasional strong winds and gales about the 31st inst. and April 2. In a future letter I will say something about the weather to be expected for the coming event on Easter Monday.
26, *Throgmorton-st., E.C., March* 20. G. SHEPHERD, C.E.,
Author of "The Climate of England."

STEAM ON COMMON ROADS.—The company formed for developing Mr. Bray's invention for applying steam on common roads has just held its third annual meeting, the proceedings at which were of a satisfactory character. As evidence of the safety of steam traction, the Chairman (Mr. H. D. Davies) drew a comparison between the return of railway accidents and the street accidents within the Metropolitan Police District, showing that the advantage was considerably in favour of steam. As regarded the engines belonging to Bray's Traction Engine Company, he congratulated the shareholders upon the circumstance that not a single accident had ever occurred through them, except in one instance, and that arose from the fact that one child pushed another child under the wheels. It is calculated that by the use of the traction-engine in Australia wheat could be raised at 1s. per bushel instead of at 6s., which is the present cost. To enable the company to carry out the increasing business satisfactorily, it has been decided to issue 15,000 additional shares of 5*l.* each. The result of the experience with the new engine is of a character calculated to augment the directors' confidence in the remunerative capacity of the undertaking. As they will turn their attention both to the manufacture and sale of their engines, as well as to the letting of them on hire, capitalists may fairly anticipate dividends at a high rate.

The Llynvi Vale Iron Company have called a meeting for Tuesday, to approve an agreement for the purchase of the Maesteg Ironworks.

Mr. Frederic Allen has been appointed secretary to the Queen Insurance Company in London.

Mr. William Bell has been appointed official liquidator of the Professional and General Loan and Discount Company (Limited), the creditors of which are required to prove their claims before the Commissioner in Bankruptcy on April 3.

LEAD ORES.

Sold on the 17th March.

Mines.	Tons.	Price per ton.	Purchasers.
Frongoch	90	£11 18 6	Panther Co.
ditto	90	11 8 6	ditto
East Darren	70	15 3 6	R. Michell & Son.
ditto	70	14 18 6	ditto
Cefn Brwyno	41	12 1 0	Sims, Willyams, & Co.
Cwm Erfin	25	15 0 0	ditto
ditto	25	14 10 0	Panther Co.

BLACK TIN.

Sold on the 15th March.

Mines.	Tons	c.	q.	lbs.	Price per ton.	Amount.	Purchasers.
Garlidna	7	3	2	17	£69 0 0	£ 495 11 11	—Bissoe Co.
ditto	1	17	3	16	50 0 0	94 14 7	ditto
Gt. Wh. Fortune..	15	7	2	15	—	1085 9 0	ditto
Gt. Wh. Vor	22	1	2	26	—	1532 3 10	—
So. Carn Brea....	5	15	1	9	62 15 0	361 17 0	—Trethellan Co.
ditto	5	14	3	16	63 12 6	365 10 0	—Chyandour.
Pedn-an-drea	7	19	3	25	—	514 5 8	—Bissoe Co..

COPPER ORES.

Sold on the 18th March.

	Tons.	Price per ton.	Purchasers.
Parys Mines	350	£5 11 6	C. Lambert.

COPPER ORES.

Sampled March 6, and sold at the Royal Hotel, Truro, March 20.

Mines.	Tons.	Price.
Devon Great Consols	125	£3 11 0
ditto	119	4 4 6
ditto	110	3 4 6
ditto	107	4 12 0
ditto	104	8 1 0
ditto	103	4 9 0
ditto	102	4 6 0
ditto	97	4 4 6
ditto	94	3 6 0
ditto	89	3 14 6
ditto	84	9 4 6
ditto	81	4 7 0
ditto	79	3 8 0
ditto	75	2 3 0
ditto	72	11 15 0
ditto	70	3 6 0
ditto	69	3 19 6
ditto	68	1 5 6
ditto	64	2 12 6
ditto	61	7 9 0
ditto	60	8 2 0
ditto	59	4 12 6
ditto	55	1 13 0
ditto	51	2 19 6
ditto	50	0 18 0
ditto	15	11 2 6
East Caradon	104	5 6 6
ditto	96	6 0 6
ditto	80	6 3 0
ditto	57	8 8 6
ditto	42	8 0 6
ditto	34	16 11 0
Marke Valley	115	1 5 6
ditto	90	4 19 0
ditto	78	3 18 6
ditto	70	5 10 6
ditto	22	2 4 6
Hingston Down	95	3 0 6
ditto	81	2 18 6
ditto	80	3 2 6
ditto	57	4 17 6
ditto	47	6 2 0
Phœnix Mines	85	3 7 6
ditto	73	3 16 6
ditto	60	2 8 6
ditto	50	4 4 0
ditto	46	11 17 0
ditto	12	4 17 6
Holmbush	71	11 15 6
Holmbush	60	£6 17 6
ditto	58	12 14 6
ditto	56	3 5 0
ditto	55	2 3 6
Great Wheal Martha	75	2 7 6
ditto	70	1 11 6
ditto	67	1 9 0
ditto	50	3 19 6
East Russell	92	3 19 6
ditto	66	3 4 0
ditto	54	8 8 6
ditto	36	3 19 0
Lady Bertha	110	2 1 0
ditto	100	3 13 6
ditto	30	8 9 6
Bedford United	110	4 13 6
ditto	108	4 1 6
Calstock Consols	95	4 1 0
ditto	45	1 2 0
ditto	40	2 13 6
Wheal Yarner	127	2 16 6
ditto	36	5 2 6
Wheal Friendship	91	3 17 6
ditto	64	10 2 6
Wheal Emma	73	4 8 6
ditto	40	10 9 0
ditto	39	2 1 6
Kelly Bray	75	3 18 6
ditto	54	1 3 0
ditto	21	5 6 0
Gunnis Lake (Clitters).	78	6 7 0
ditto	42	3 10 0
Okel Tor	100	2 0 6
ditto	20	0 11 6
South Bedford	75	1 16 0
ditto	20	6 3 6
Trehill	40	1 15 0
ditto	16	1 7 0
Bampfylde	41	18 6 6
Brookwood	35	5 17 0
ditto	2	20 17 0
Gawton	37	3 16 6
Hawkmoor	17	5 10 0
ditto	14	6 6 6
New Cornish Company.	23	2 10 6
Fursdon	15	5 8 6
Crowndale	13	2 2 6
Great Tregune	10	9 3 0

TOTAL PRODUCE.

Devon Gt. Consols	2063	£9629 18 6	Kelly Bray	150	£467 15 6
East Caradon	413	3004 3 6	Gun. Lake(Clitters)	120	644 5 0
Marke Valley	375	1678 19 6	Okel Tor.....	120	214 0 0
Hingston Down ..	360	1340 1 0	South Bedford	95	258 10 0
Phœnix Mines	326	1519 4 0	Trehill	56	91 12 0
Holmbush	300	2288 4 0	Bampfylde.....	41	751 6 6
Great Wh. Martha..	262	584 5 6	Brookwood	40	264 19 0
East Russell	248	117 4 1	Gawton	37	141 10 6
Lady Bertha	240	847 5 0	Hawkmoor	31	182 1 0
Bedford United....	218	954 7 0	New Cornish Co...	23	58 1 6
Calstock Consols ..	180	541 5 0	Fursdon	15	81 7 6
Wheal Yarner	163	543 5 6	Crowndale	12	25 10 0
Wheal Friendship..	155	1000 12 6	Great Tregune	10	91 10 0
Wheal Emma	152	821 19 0			

Average Standard ..... £129 12 0 | Average Produce 5¾
Average Price per ton £4 14 0
Quantity of Ore ..... 6205 tons | Quantity of Fine Copper, 356 tons 18 cwts.
Amount of Money £29,199 19 6

LAST SALE.—Average Standard..... £124 12 0.—Average Produce 6¾
Standard of corresponding sale last month, £123 13 0.—Produce, 6⅛.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Vivian and Sons	621	£3632 16 0
Freeman and Co.	307	1450 1 9
Grenfell and Sons.....	600	4492 15 6
Crown Copper Company.....	144	670 11 0
Sims, Willyams, and Co.	741	3960 13 9
Williams, Foster, and Co.	749	4480 10 0
Mason and Elkington	392	1343 5 3
F. Bankart	275	859 5 6
Copper Miners' Company	325	1325 6 3
Charles Lambert	1037	2921 11 0
Newton, Keates, and Co.	282	1695 16 6
Sweetland and Co.	730	2377 7 0
Total	6205	£29,199 19 6

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Great Wheal Busy 527—West Caradon 521—South Caradon 456—Wheal Clifford 402—Fowey Consols 300—East Crinnis 285—North Treskerby 260—North Downs 250—Tywarnhaile 240—Craddock Moor 165—Wheal Polmear 140—St. Day United 127—South Crinnis 95—New Treleigh Consols 75—Wheal Moyle 64—Duchy and Peru 51—Perran Mines 36—Pednandrea 25—Burra Burra 25—Trenoweth's Ore 19=4108 tons.

Copper ores for sale on Thursday week, at Tyack's Hotel, Camborne.—Mines and Parcels.—Wheal Clifford (amalgamated) 930—West Seton 531—Tincroft 432—East Pool 320—Wheal Seton and Pendarves 311—Wheal Basset 256—Condurrow 251—South Frances 207—South Tolgus 131—Camborne Vean 122—East Basset 120—Stray Park 74—Dolcoath 48—South Crofty 43—West Tolgus 36—South Basset 30—Wheal Uny 30—Carne Camborne 30—West Condurrow 4—Halse's Ore 1.—Total, 3907 tons.

Copper Ores for sale at Swansea, April 1.—Berehaven 564—Cobre 330—Knockmahon 283—Great Barrier 98—Lochwinnoch 89—Springbok 62.—Total, 1426 tons,

Notices to Correspondents.

*** Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly *filed* on receipt: it then forms an accumulating useful work of reference.

THE MWYNDY IRON COMPANY.—I shall be glad if any one will inform me, through the Journal, if anything has been heard lately relative to the statements which have been inserted respecting the discoveries in the "Blue Rock" deposit on the Mwyndy Estate, as many of the shareholders are naturally anxious for news respecting it.—H. B.

GOVERNMENT INSPECTORS OF COAL MINES.—We are not aware of any legal enactment preventing the Secretary of State from appointing an Inspector without examination; but as Sir G. C. Lewis, when occupying the office of Home Secretary, promised the House that in future appointments the candidate selected should be examined as to proficiency previously to being invested with power, it is probable Sir George Grey will adopt a similar course. We candidly admit, however, that we cannot see the utility of a competitive examination in the appointment to such an office as Government Inspector, because we cannot understand how competent examiners can be obtained; and we fear that, if the apparent proficiency as shown in a competitive examination be relied upon in making the choice, the worst possible results will follow. We consider that competent engineers, who have gained their experience in and about the pits, are far better capable of performing their duties well than many whose intimate connection with scholastic discipline would give them paramount advantages over practical men in the professor's examination chamber.

LELANT CONSOLS.—"Inquirer" writes that he would like to learn a little respecting these mines. Allow me to tell him the mine is kept as a "close borough." Some time since reports were ordered to be sent to the Journal every first week of the month, but as out-shareholders were likely by this means to become as wise as those on the spot reports were discontinued, and have not since appeared. It would appear that we have no right to hear about our property, only at such times as our assistance is required; and so I suppose "Inquirer," like myself, must be satisfied to pay and ask no questions.—A SHAREHOLDER.

EAST CARN BREA.—Myself and friends were about to invest in this mine, but before doing so we thought it desirable to have it inspected by a disinterested agent of our own selection; I accordingly desired my broker to obtain an order; but, to our great surprise, however, he (at that time a registered shareholder) was informed, on applying at the office, that the committee had given instructions that no more orders to inspect were to be issued. I need scarcely say that neither my friends nor I have purchased, nor shall we until such rules as these are rescinded. I have, until the present occasion, always obtained an order to inspect any mine in which I have wished to invest, and I cannot but think that the committee of East Carn Brea will, ere long, find out that the rules I mention will drive many to sell their present interest, and prevent others from purchasing.—W. P.

EAST CARN BREA.—This mine is now creating some considerable attention in the market, and being desirous of having it inspected by my own agent, I made an application to the secretary a few days back for an order to do so. Judge my surprise when I was informed that the committee had resolved to allow no person in future to inspect the mine. The only tenable reason given for this determination was that so many people going down the shaft interfered with the workings; but there is a time, I presume, when the captain goes over the mine to make his report, and why not appoint this as the hour of inspection, when other agents could accompany him without hindrance to the operations? I am a small shareholder, and have no other means of redressing my grievance but by making it known through the medium of your widely-spread pages, and I, therefore, trust you will do me the justice of inserting this. I must say I consider it most unfair that I can neither inspect the mine nor look at the books, and the thought arises in my mind—Why all this secrecy? Why not let things be open and free to all shareholders as in other mines? I such a course as this calculated to satisfy the absent shareholder, or to engender suspicious ideas? The captain of the mine is, no doubt, a good miner and an honest man. I have nothing to say against him; but I do not know him, and I wish to send my own agent, in whose report I can place every confidence, and, if the committee are equally confident in their captain, why refuse to allow mine to inspect.—A SHAREHOLDER: *London*.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, MARCH 22, 1862.

We may congratulate those of the subscribers to the Hartley Relief Fund who are opposed to the application of the surplus moneys to the formation of a local permanent fund upon the circumstance that the proceedings at the meeting of the general committee, on Friday, were of a satisfactory character—of the 72,000*l.* subscribed, 60,000*l.* is to be invested in the names of a committee composed of Sir W. G. ARMSTRONG and Messrs. JOHN CLAYTON, R. B. SANDERSON, jun., HUGH TAYLOR (Earsdon), and T. E. FORSTER (Newcastle); and of the 12,000*l.* which will remain after the above investments are made a portion will, of course, be left in the hands of the treasurer to meet current payments, and any balance beyond that requisite for the purpose will be invested in Consols, so as to produce a moderate interest, and yet be available at any time. In the discussion relative to the disposal of the surplus we are glad to state the opinion secured almost generally that the permanent fund should be for the benefit of the sufferers by colliery accidents, without regard to the district; but Mr. J. B. ALEXANDER and Mr. J. SPENCE were opposed to so just an arrangement—the former urging that it was only in Northumberland and Durham that the working men had made any organisation, and that aid should only be afforded to similar organisation when formed in any other part of the country; and the latter contending that if it were made a national affair, and every accident were relieved as it occurred, the money would soon be gone. We regard the meeting as satisfactory, because the result affords evidence upon two points, with respect to which much doubt existed. It is proved that the committee does not altogether ignore the justice of applying the surplus fund to the formation of a *general* permanent relief fund, and that they acknowledge that they do not possess the power to apply it to any purpose other than that of relieving [illegible] ley sufferers without the consent of the subscribers; we may hope, therefore, that the fear expressed by some of our correspondents, that the part of the fund would ultimately be lost through Chancery proceedings being necessary to teach the committee their duty, will be entirely [illegible] foundation.

As Mr. ALEXANDER and Mr. SPENCE are the only gentlemen who yet been bold enough openly to support the application of the surplus local purposes, though many were ready to co-operate with them when was thought that affairs could be arranged *sub rosa*, we trust that will be but little trouble in convincing them of their error. With to Mr. ALEXANDER'S statement, it appears to us that if the organisation as good as he infers in Northumberland and Durham, there could be difficulty in extending it to other districts, which are certainly titled to participate in the benefits at disposal; and we think SPENCE'S argument, that the surplus is insufficient to apply thoroughly untenable. We last week noticed the proposal of Mr. PEASE for the establishment of a system of life assurance somewhat lar to that advocated by Mr. BAXTER LANGLEY some few years since this the correspondence we have received has been very Though many of the propositions are, doubtless, worthy of attention regard the scheme of which the subjoined is an epitome as likely to succeed in practice. It is proposed that the surplus be retained by the present committee, or at least by a committee castle, but for the benefit of the colliers of all districts, and that plus should form the reserve fund of a Miners' Provident Institution could undertake to pay the amounts mentioned by Mr. PEASE—£ widow or representative of every collier killed, for funeral expenses per week to the widow for the first five years of her widowhood, paid down if she marries again within four years; and to each of the under 14 years 1s. 6d. per week for the same period—to every scribing 2d. per week to the fund. It is further proposed that the should authorise their pay clerks to collect the contributions of and should be responsible for the remittance of the amount. It tended that this would provide for all fatal accidents, and that in lieries the owners of which subscribed an amount equal to that of weekly relief to the extent of 20*l.* should be paid to the sufferer non-fatal accident. These amounts, it is estimated, would be cured by permitting voluntary subscriptions to be made.

The advantages of the COST-BOOK SYSTEM as a law for the ment of companies formed for the development of mines within diction of the Stannaries Court was carefully discussed in the *Journal* of March 8, and the views therein expressed are further borated by the result of the case of "Cox *v.* Harvey," which was a for an injunction to restrain three actions brought against Cox by of the Trevoole Mining Company, working a mine at Crowan. It appeared undertaking had its origin, and a number of persons, of whom the some, became partners or adventurers, on the Cost-book Principle, to ject as a copper and tin mine. In 1861 the company held meetings the mode in which the business had been conducted, and to winding-up the concern. The bill then contained detailed which the affairs had been conducted, stating the actions that had the plaintiff, incited, as he alleged, by the purser and other and contended that he had, in fact, paid all that could be claimed denied by the defendants, as was the alleged collusion, whereupon half of the plaintiff to bring into Court whatever should appear The Vice-Chancellor (Sir R. T. Kindersley) said that, according although an action might be brought against a single shareholder by establishing a plea in abatement defeat such action. It had, happened that actions had been brought by creditors against being tools of the company, and *if that could be made out this Court would stay such action*, on the ground that it was obviously and grossly person should bear the brunt of that to which all should same time, if the shareholder owed money to the company without offering to pay or bringing into Court what should the principle that he who asked equity should do equity. and the chief difficulty was in applying them. In this pany was charged on the plaintiff's belief, and the The defendants denied it in the most positive manner. the committee had enquired with respect to other them, that would be no ground, being no collusion. lusion was satisfactorily explained, and there was, and it was, of course, unnecessary to enter into tion must be refused, with costs, as against the to be costs in the cause.

From these recent decisions it will readily be seen that the Cost-book System knowledged by the Court of Chancery to be that which has often been a common law partnership, in which each partner has the privileges of a joint-stock undertaking. Hitherto, however, the great evil has been that vidual shareholder was liable for the entire debts of the company, and ver the amount paid beyond that due from him by suing his copartners. now, however, modified, and for this very considerable benefit the book companies have to thank the law which gives the Court of of deciding whether it is more advantageous to the general body of Court of Chancery or the Court of Stannaries to have jurisdiction. forth be necessary, where the names of defaulters are handed over the merchants, as is almost invariably the case, will be to pay the obtain an injunction from the Court of Chancery, the costs than those which would otherwise be paid to the Court of time all further litigation will be stayed.

In confirmation of the announcement which we made three weeks that the Cobre Mining Association had determined to smelt their ores in Cuba, we are now enabled to state that they have entrusted tire organisation and management of this department to Mr. F. Bankhardt, late of the Briton Ferry Copper Company, who leaves for with a competent staff and ample supply of materials, by the next the company's fleet from Swansea. The intention at first is only to centrate the poorest ores into a regulus of 30 to 40 per cent.; but found to answer all expectations, the greater portion of their ores bably be smelted on the spot. Mr. Bankhardt's ability, and his experience of this company's ores, render him especially suitable post to which the directors have elected him, and we have no result of his operations will have a most favourable effect upon pany's prospects.

GOVERNMENT INSPECTION OF COAL MINES.—THE EAST SCOTLAND DISTRICT.—We have already mentioned Mr. Ralph Moore, of Glasgow, a person thoroughly competent to undertake the duties of Government spector for the Eastern District of Scotland, and we find that wrote the working colliers have been strenuously exerting themselves favour of the same gentleman. We subjoin a copy of the memorial has been prepared for presentation to the Secretary of State. A of these memorials have already been presented, in addition to that large delegate meeting which has been held in Glasgow:—

Unto the Right Hon. Sir George Grey, Baronet, Her Majesty's principal Secretary of State for the Home Department. The memorial of ——.

Humbly sheweth,—That your memorialists have learned that the situation of Inspector of Mines for the Eastern District of Scotland is now vacant, and that among the applicants for the office there are parties who have been managers of mines which not properly ventilated or otherwise conducted, in conformity with the law. That such an appointment deeply involves the safety and comfort of the miners, your memorialists would earnestly solicit that no applicant be appointed until due enquiry as to the manner in which he conducted the mines previously under his charge. That your memorialists are aware that the influence of coal and ironmasters is being used on behalf of certain of the applicants; but, while deprecating undue influence in the appointment, your memorialists, on behalf the parties most seriously interested, would most respectfully suggest as gentlemen who would act impartially between employers and employed, Mr. Ralph Moore, mining engineer, Glasgow, or Mr. A. Thomson, coalmaster, Wisham by Glasgow. May it, therefore, please the Right Hon. Secretary to take this memorial into his most favourable consideration, and your memorialists will be ever grateful.

ECONOMIC BRATTICE CLOTH.—Amongst the articles connected with colliery workings to be exhibited in the forthcoming International Exhibition, Mr. Ellis Lever, of the West Gorton Works, intends to exhibit a model, showing the application of his improved material for brattice cloth and tubes, and concerning which Mr. Coulson has given the subjoined very flattering testimonial:— *Crossgate Ironworks, Durham, March 17, 1862.*

DEAR SIR,—I have to thank you for the dispatch which your brattice cloth was to me in ventilating the shaft at Hartley Colliery against the insidious gas which we had to contend with when endeavouring to reach the unfortunate miners who were all alive at that colliery. Your brattice cloth was brought from the neighbouring [illegible] in the district. It did not only save us time in accomplishing the [illegible] the bodies of the poor sufferers, but also a great deal of expense, as the pumps were lying across the shaft in every direction, so much so that the ropes we had with had to wind around them before reaching the bottom; therefore, the usual brattice would have been very difficult to get in, and would have occupied a much period. I may also state that the brattice cloth ventilated the shaft and the so effectually, that when we reached the bodies they were all sent to bank causing us any stoppage or unpleasantness for want of ventilation. I have also troduced your brattice cloth into several collieries on the Continent, for the use of lation in mining, whereby there is a great saving effected (in those mines where both in time, labour, and material, against that of the use of the ordinary wood tice, and I believe will now generally be adopted after being introduced and I have several shafts to sink on the Continent where temporary brattice will be and I purpose using your cloth in every case; in fact, every shaft where I require porary brattice I intend making use of it, as I consider it a great saving of

from the wooden brattice, and after being done with in one shaft, if care is taken, still of service for others. WILLIAM COULSON.

ACCIDENTS COMPENSATION BILL.—In the House of Commons, on Wednesday evening, the second reading of this bill was moved by Mr. Ayrton. e object of the bill was to enable a workmen to sue an employer for compensation for injuries sustained in the course of his work, and from causes which arise no fault or neglect of his own, a right which under the existing law he did not ss; for in the only case in which a workmen ventured to sue a master for injury to him in the service of the master, the courts of law decided that no action of that ould be brought. The Attorney-General considered that the liability of the master r the present law was sufficient and adequately defined. Mr. Bonvill opposed the because practically it would make the masters the insurers of their workmen. Mr. Bruce also opposed the bill, considering that all for which masters ought to be reponsible was the taking of due and reasonable care for the protection of their servants. ntinued that, without entering into the question whether it might be expedient in re to insist upon a second shaft to every colliery, it was clear that up to this time ingle shaft had been largely used, and had not been declared inconsistent with that egard for the safety of their workmen which colliery proprietors were bound to ow; that the accident was caused by the breaking of a cast-iron beam in a very at manner; that in all other respects the colliery was well managed; and that, r these circumstances, it would have been unjust to render the proprietors liable, as Ayrton's bill would have done, for the consequences of that accident. Mr. W. E. ar hoped that nothing which had been said in the course of this discussion would be erstood as denying the necessity for special legislation to prevent the recurrence of lamentable accidents as had recently occurred. He did not think it would be deto apply the general principle that masters should bear the responsibility attendant on done by their servants in the way proposed by the hon. and learned Member for Tower Hamlets. Where it was easy for an employer to prevent accidents it was very able to have special legislation; but it must be borne in mind that there were risks arable from some occupations, and persons entering on those occupations did so with wledge of the existence of those dangers. Sir M. Peto thought that by the present asters were bound to do their best to prevent accidents to their workmen, and that uld be unjust to do more. It was agreed that the second reading should be negaon a without division, Mr. Ayrton announcing his intention to prepare another bill, h, while dealing with the matter in the manner he desired, would remove some of echnical objections made to the measure now before the House. We trust that Mr. on will not forget the promise thus made again to bring the subject before the House, feel assured that at present the pecuniary responsibility of the master is so limited many deaths result to colliers, which a measure like that of Mr. Ayrton's, by ing greater care in the selection of competent officers for the conduct of the pit, prevent.

PROPHECY OF SCIENCE.—Taking up the "Transactions of the Geoal Society of London," second series, vol. iii., 1835, the other day, we upon the following remarkable prediction by Professor Sedgwick: Considered on a great scale, the magnesian limestone in the county of am may be described as a dam passing over the south-east side of al basin, and cutting it off from all direct communication with the except in two places, where the dam is broken through by the channels of the Wear yne. The richest parts of the coal field bordering on these rivers are already beg to be exhausted, and some of the more remote parts are, by means of railroads, ought into communication with these navigable outlets. The railroad from West land to Stockton is 23 or 24 miles in length; and the coals are dragged out of the by a fixed steam-engine, over an elevation which is 472 feet above the high-water at Stockton. At the single pit of Hetton-le-Hole (the works of which are carried h in the High Main and Hutton seams) more than 1000 tons of coal are each day to the surface. After being driven by movable steam-engines along the base of gnesian terrace, they are, by the power of two fixed engines, dragged to the top along a system of inclined planes, which reach an elevation of 350 feet above the vel from which they started; from thence they descend along a second system of ed planes, and are afterwards rapidly transported by movable steam-engines to the of the Wear. An excellent line of communication (and, so far as regards the mere ortation of coals to the coast, a much better one than that which has been effected West Auckland) might be established between Stockton and a rich part of the coal through a natural depression of the limestone terrace immediately to the south of gh Hall. But the singular denudation of Thrialington Gap (where a chasm has been completely through the terrace) offers the best line of communication between coast and the part of the coal basin to the south of Durham. From this part of west field coals might be conveyed to the sea by a series of dead levels not more than 16 miles in length, on which it would not, I believe, be necessary to use a single engine. *Millions of tons of coal are destined in future times to descend through up to the neighbourhood of Stockton. Indeed, before long all the remote parts coal basin will be intersected with railroads, which will rise over the escarpof the yellow limestone, and meet, like converging rays, at the nearest seaports.*"

y person who is acquainted with the localities of Ferry Hill, Stockton, Clarence, and the Hartlepools, will recognise in their present state a riably close fulfilment of Sedgwick's prophecy, written 27 years ago, the railway system was in its infancy.

E DEPRESSION IN THE IRON AND COKE TRADES—ITS EFFECTS UPON WAY TRAFFIC.—A few weeks ago we made extracts from the speeches Chairman of the North-Eastern and the Stockton and Darlington ay Companies, on the decrease of traffic occasioned by the decline of trade, and the long-continued depression of the iron markets. This week, the an of the Newcastle and Carlisle Company, Capt. Woods, has described the effect the prevailing stagnation has produced upon the returns of traffic on his line. In ing that the dividend was reduced by 7*s.* 6*d.*, as compared with that of last year, irman said that, probably, at no time had there been a greater depression in some important manufacturing and trading communities of the district—a depression ding so much to passengers and goods as to minerals, coke, coal, and ironstone. latter part of 1859, and beginning of 1860, there was a very great excitement in trade. In the West, 15 furnaces were prepared for action, and the directors exto have been able to increase their revenue by the extensive supplies that would een required, particularly of coal, for that district. Unfortunately, the trade took a number of those furnaces were not commenced, some were put out of blast; he fact was that only four were now in use. They were disappointed by witthe suspension of that source of supply for which they had provided extra wa so that there might be no cause for an interruption of the manufacture through the y's inability to provide transit facilities. He was quite of opinion, however, ade would recover from its present depression; and that this district must in the ome the seat of a most extensive production of iron. The materials for the iron facture were all here on the spot, and of the first quality. They had coal and they had lime, they had ore (either native or obtainable from a distance at a small and from these circumstances, and knowing that every year the cost of raw mate was very much increasing in Wales and Staffordshire, and in Shropshire, he was ured in his own mind that this must, at no lengthened period, be reckoned as one principal iron districts of the country. In his recollection there was only one on the Tyne—it belonged to the Tyne Iron Company. Some time after they got ; but when he told them that there were now in existence 95 furnaces in ties of Northumberland and Durham, not got up by speculators, but generally ie of sound judgment and good capital, they would see that there was a favourression to be derived as to this becoming the great iron district of the country. d just make one short remark as to the production of iron, and the improvehat had been effected therein. He found that, whereas formerly 45 up to 80 tons ckoned as a good production in the week from one furnace, now 200 tons was not d as a very large amount; and it often extended to 250 and 300 tons in some e of modern construction. That was really a very important subject, and he had to it at greater length, perhaps, than was necessary, because so much of the ty of that railway depended upon the iron trade. He had stated that, in the exe of a large increase in the demand for coal and coke, and other produce required furnaces on the west part of the line, the directors had been anxious to secure a e quantity of rolling stock, so as to prevent any inconvenience on that account. had obtained 298 new coal waggons and 2 new engines—the former costing 11,852*l.*, latter 4180*l.* They were, perhaps, disappointed that that additional stock was er occupied, but they were ready whenever there should be an improvement.

VENTILATION OF COAL MINES.—In a recent Journal we alluded to a interesting lecture, delivered at the Polytechnic Institution, by Prof. Tupper, upon "The late appalling Accidents in Coal Mines," in he imparts to his audience a very satisfactory knowledge of the dand difficulties to be encountered in the working of collieries. It of course, necessary in the first place to descend into the pit, the commences by describing the means by which the workings are reached, exthe various contrivances which have been proposed for preventing the fall of the the unfortunate event of the rope breaking, and the necessity for the general of so excellent an arrangement for securing safety. The next important point ture is that relating to the ventilation of collieries, and the propositions reade for securing, as the inventors state, absolute safety have naturally furnished ample material for this portion of his subject. After explaining the manner a current of air has hitherto been kept up in collieries, and commenting upon e merits of the fan and the furnace, he describes, in a popular and interesting two inventions with which our readers are not altogether unacquainted—Mr. Richard Hugh Hughes, of the Atlas Works, Hatton-garden; and of Mr. s, of the Blaenavon Gas and Water Works, both of which, it will be reinvolve the use of pipes similar to those used in supplying towns with gas. proposes to force in the fresh air, Mr. Williams to extract the foul. The of the latter invention is rendered far more intelligible by the aid of a small ded, in which the heading to be drained of gas, and the means of draining it, e shown. The heading is represented by a receptacle capable of containing ubic feet of the explosive gas, the whole of which is readily drawn off by an iron about 1 inch bore, and in the form of an inverted syphon, it being well known erated hydrogen (the explosive gas of collieries) has as great a tendency to gh the air as water has to fall through it. The mode of making a fluid flow syphon is well understood, and Mr. Williams finds that to make the gas flow ositive direction all that is necessary is to provide at the upper end of the tube a of water, by the emptying of which a vacuum is produced; the foul gas will continuously. The entire lecture is of a very instructive character, and forms ible variation with the musical lecture by Mr. Carpenter, and the lecture "On ry," by Mr. J. L. King. The lecture "On Collieries," and the geological models, e Institution particularly attractive to the mining community at the present time.

ER CONVEYANCE OF COALS.—Some improvements in apparatus to oyed for the water conveyance of coals and other materials has been ally specified by Mr. H. Greaves, C.E., of Abingdon-street. The n has for its object the more speedy and economical conveyance of other materials from the place of their arrival in port to any depôt within reach communication, and also for the more speedy and economical delivery of the their destination. His improvements consist in the arrangement of a pon, or raft, on which he places one or more lines of railway suitable for receiving ks, or wagons, in which the coals or other materials are placed, and in which conveyed from the place of arrival to that of their destination; and this he effects by constructing a raft of pontoons or other suitable floating structure, upon which he places a platform or other suitable framing, and thereon one or more lines of railway, so as to accommodate the requisite number of trucks, carts, or wagons. He employs as many of these floating rafts as circumstances may require, uniting them at their extremities, and navigating them by steam or other suitable means, as the circumstances of the navigation may require. He further employs at the wharf or depôt one or more slips, as may be necessary, to accommodate one or more rafts, on each of which slips he places trucks (either attached to or detached from the raft or rafts) in sufficient number to sustain the weight of the raft together with its trucks and freight of goods; these he causes to be floated over the slip, and deposited thereon either by admitting water into the pontoons or, when convenient to wait, by the reflux of the tide. The raft with its load is then brought to its intended position at the quay or wharf by floating it, or should the tide have receded from it, then by mechanical means. When circumstances require that the raft (after it has been unloaded) should not be detained at the quay or wharf until the tide floats it, it may be lowered into the water by its own gravity, breaks or other suitable means being employed for the purpose of checking its descent too rapidly down the slip. The slip is then ready to receive another raft. The trucks, carts, or wagons in which the goods are deposited are transfered from the raft to the wharf by means of a railway on a quay corresponding to that on the raft, and from thence are conveyed into the depôt, either on the level or by an incline plane, when it is desirable to shoot them. By the foregoing arrangements and combinations the transport and delivery of goods will be greatly facilitated, and the labour and liability to injury greatly diminished.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

MARCH 20.—The Iron Trade still continues in a very depressed state, and little business is doing for any description of brands. There is a tolerable enquiry for iron for railway purposes, but little for other descriptions. The Coal Trade is dull, and scarcely any improvement has been experienced in the demand. The cotton and woollen trades are in such a depressed state that employment can scarcely be found for half the colliers who are ready to do it. The markets are literally glutted with coal, and coalmasters have to submit to great reductions in price to effect sales.

The prevailing topic of discussion in mining circles this week is the great trial of the Mill Dam and the Great Hucklow Companies, in which no less than 52 witnesses are engaged. The trial, it is expected, will last two or three days, and the most eminent counsel on the Midland Circuit are retained. Mr. Macaulay, Mr. Serjeant Hayes, and Mr. Field are retained for the plaintiff, and Mr. Boden, Q.C., Recorder for Derby, and Mr. Stephens are employed for the defendant. The cause will be heard on Friday, and the greatest interest is anticipated as to the result, the contention being as to the right to a water-course which the Mill Dam Company have been using, and which the Great Hucklow contend is their exclusive property.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

MARCH 20.—The preliminary meeting of the South Staffordshire Ironmasters' Association is fixed for the 27th inst. It is not anticipated that any change will be made in the list prices. An advance is, of course, out of the question in the present state of the trade, and, though a good deal of underselling prevails amongst the second-class makers, the rate of wages and the cost of the raw material will not justify a reduction. There are a few more orders given out recently, but the trade is extremely flat. Everyone is waiting for news from America. The Hardware Trades are, perhaps, fully as good in Birmingham, Wolverhampton, and the intermediate districts. The improvement must, however, be much greater before these trades will approach to their normal position.

The following appears in the *Midland Counties Herald* of to-day:—

"An instance of the enormous profits resulting from lead mining, when properly conducted, is furnished by the permanently lucrative Snailbeach Mine, Shropshire. The extensive and valuable minerals under Hoggestow Hall Farm, actually adjoining the western boundary of that mine, are now leased upon favourable terms to the Central Snailbeach Mining Company (limited), the names of whose directors and officers (Mr. Job Taylor, of Dudley, being Chairman) appear in an advertisement, and are a guarantee for the sterling nature of the undertaking, and that the money of the shareholders will be judiciously expended. The Snailbeach main lode has been identified in one of this company's levels." The capital of the company is 10,000 *l.*, in shares of 1*l.* each

The Staffordshire Assizes, which terminated on Tuesday last, have, as usual, so far as the civil business is concerned, been largely occupied by the trial of cases in connection with mining in South Staffordshire. In one case—Whitmore *v.* Groucutt and Sons—the plaintiff sued for damages to house property, which he alleged was occasioned by the mining operations of the defendants. It was clear that the injuries arose from subsidence, but evidence was afforded on the part of the defendants showing that the thick coal, or so much of it as was left under the plaintiff's property, had been burning for nearly forty years past. Trial holes showed that the ground was in a state of the greatest heat; solid strata were reduced to powder by calcination; potatoes were roasted in a trial hole sunk to ascertain the state of the strata; and iron bars driven into the ground became very hot. The result was a verdict for defendants. In another case Mr. Cottom, ironfounder, sued Messrs. Philip Williams and Sons for injuries to the land on which plaintiff's foundry was erected. In this case the basin of a branch of the canal had been let down, the works flooded by being sunk below the level of the canal, and, finally; the machinery had been swallowed up. The counsel for the plaintiff described the injuries as first drowning and then burning the plaintiff's plant. The surface had originally been sold by the defendants, with a reservation of the mines and power to work them, and with a proviso against any liability for accidents to buildings for mining operations. As the deed made no mention of the surface or the machinery in this protecting clause, plaintiff sought damages for injuries to the surface and to the machinery. The judge urged that it was not a case which could be tried finally at that Assizes, and it was agreed that a special case should be stated for the consideration of the Court of Queen's Bench. It is, however, probable, that all the expense of examining witnesses will be incurred, as a counsel is named who is to state the case should any dispute arise.

Another protracted trial took place in reference to an alleged impregnation of the water of a person's well by an escape from the tank at the bottom of a gasholder, of 130 feet in diameter, belonging to the Birmingham and Staffordshire Gas Company, and erected near West Bromwich. The reservoir had been erected on a fault on the red sandstone rock, but the extraction of adjacent strata of coal, especially the ten-yard seam, caused the bottom to crack, and occasioned a leakage of the water. A verdict was given for the plaintiff.

The accident at Tividale, noticed last week, resulted in the death of Isaac Ball, one of the seven men who were in the skip when it was raised to the pulley. Two others are seriously hurt, one of whom, John Lloyd, the doggy of the pit, by whose activity the wagon was pushed over the mouth of the pit, and thus, no doubt, many lives saved. The accident illustrates, in a very forcible manner, the lax discipline which prevails in many of the collieries. The doggy, John Lloyd, had been to a public-house with the engineman of the pit, and, according to the latter, they had three quarts, but they treated some persons at the public-house, and Lloyd said they were quite sober on their return. There was a great discrepancy between the statements of the doggy, the engineman, and the banksman; but, according to the first, he heard men calling from the bottom of the pit to be drawn up, and he told the engineman to "go on." The latter said he was quite unaware that men were coming up, and that he was deceived by the bell only ringing three times instead of four. The banksman, Evans, though ordered by the doggy to go to the wagon, did not do so, and but for the activity of Lloyd the mouth of the shaft would not have been covered. A verdict of "Manslaughter" was returned against Joseph Dudley, the engineman, who has always borne a good character, and who was extremely distressed at the occurrence of the accident.

REPORT FROM MONMOUTH AND SOUTH WALES.

MARCH 20.—The Gethin catastrophe and inquest are still the subject of general conversation, and the rather unexpected conclusion of the jury has made it a still more prominent subject. The general opinion which prevails is that the verdict will be reversed at the Assizes, which is generally the course which cases of this description take. The fund for the relief of the widows and orphans has now reached about 3000*l.*, which it appears is wholly inadequate to make any kind of substantial provision for the maintenance of the bereaved families. Mr. J. Coke Fowler, the stipendiary magistrate of Merthyr, has given it as his opinion that 6000*l.* will be required, and no doubt the calculation is a fair and reasonable one. The committee are making an urgent appeal through the different newspapers and other media, and it is to be hoped that the British public will once more be true to their traditional character of being a liberal and generous nation, especially where the withering hand of Death has been the cause of so much loss to those left behind.

A case of some interest came before the Assize Court at Swansea last week. It was an action brought by Lewis Jenkins, an inkeeper, residing at Aberaman, against Mr. Crawshay Bailey, M.P., the proprietor of the Beaufort, Nant-y-Glo, Aberaman, and other iron works. The amount sought to be recovered was a sum of 358*l.* 8*s.* 4*d.*, alleged to be due for beer, &c., and 50*l.* was paid into Court. Mr. Grove, Q.C., and Mr. H. Allen appeared for the plaintiff, and Mr. Giffard and Mr. Bowen for the defendant. The plaintiff formerly kept the Swan Inn, Aberaman, and he was directed by the defendant to supply his agents, &c., with 20*l.* worth of beer every month, and no more: plaintiff, however, chose to let the agents go over the "bounds," and defendant refused to pay the over-score, alleging that as plaintiff had thought proper to trust the agents he must look to them for the money. A singular fact came to light in the examination of plaintiff's books. The defendant directed that 20*l.* worth of beer per month should be supplied to the agents and workmen, but plaintiff had almost always supplied brandy, gin, and other spirits. The account, however, when presented was always for beer. It was proved that defendant had never been paid more than 20*l.* per month. The jury, after a few moments' consideration, returned a verdict for the defendant.

The half-yearly meeting of the Monmouthshire Railway and Canal Company was held on Wednesday last (Mr. Crawshay Bailey, M.P., in the chair). The directors' report for the past year stated that the general revenue account showed there was a balance of 15,973*l.* 6*s.* 9*d.*, and as that sum would, less income tax, yield a dividend at the rate of 6 per cent. per annum, and leave a balance of 1219*l.* 12*s.* 6*d.* to be carried to the next half-yearly account, the directors recommended that a dividend at that rate be declared, and made payable on April 5 next. The engineer reported that the works generally were in a good state of repair. The West Midland Company were applying for powers to use compulsorily the railways, stations, &c., and otherwise to take for their purposes, the property of the Monmouthshire Company; also to take a lease of the Sirhowy line. The committee had petitioned against the bill. The report was unanimously adopted, and the dividend of 6 per cent. was agreed to. On the proposition of Mr. Russell, seconded by Mr. H. J. Davis, it was resolved that the income tax of the officials and servants should be paid for the past year. The Chairman congratulated the shareholders on their prosperous condition. In reference to the bill of the West Midland, he said the directors were quite prepared to give equal facilities to both the West Midland and to the London and North-Western to bring their traffic to Newport. After the transaction of some further business, and the passing of the usual votes of thanks, the meeting concluded.

On Saturday last a great iron flange rail, about 90 feet long, and weighing 58 lbs. to the yard, was successfully rolled at the Cwmavon Works. There was also a model flange rail, 63 feet long, and weighing 33¾ lbs. to the yard, and a copper and yellow metal rail rolled, all being intended for the Great International Exhibition. Mr. Lewis, the rail-mill agent, superintended the operations, and the productions reflect the greatest credit on him and all those employed in his department.

As mentioned in our last, the ironworks of the district are more busily employed than has been the case for some time. New furnaces are expected to be blown in at several works, and altogether things look promising. The house coal trade continues in a depressed condition, and there are no signs of improvement. The foreign trade, however, keeps buoyant, and there are large orders now on hand.

In the Supplement to this day's Journal we give the evidence of Mr. J. Kenyon Blackwell on the Gethin Colliery Accident; it is of a very valuable nature, and deserves attentive perusal.

The arrivals of vessels from foreign ports during the last week include—Usk, from Coquimbo, with 350 tons of copper bars and 170 tons of copper ingots, for order; Acacia, from Caldera, with 520 tons of copper regulus, 45 tons of copper pigs, and 50 tons of copper ore, for Henry Bath and Sons; Edmund Preston, from Caldera, with 350 tons of copper regulus, 300 tons of copper ore, 1 ton of scrap copper, and 70 tons of silver ore, for Henry Bath and Sons; Chili, from Caldera, with 280 tons of copper ore, 350 tons copper regulus, and 30 tons of silver ore, for Henry Bath and Sons.

BRAY'S TRACTION-ENGINE COMPANY.

The third ordinary general meeting of shareholders was held at the offices, Pall Mall East, on March 14,—Mr. H. D. DAVIES in the chair.

Mr. LOUTTIT (the secretary) read a report, from which it appeared that the experience gained by the directors during the past year, with regard to the working of the engines and the conduct of the business of the company, had been so entirely satisfactory that they had now the fullest confidence in the ultimate success of the system of steam-traction. A new engine, No. 16, built at the company's factory, was finished a few months since. In its construction every desirable adaptation was tried, and as some of these were necessarily experimental, its completion was considerably delayed by the modifications and alterations suggested as the construction proceeded. The results obtained, however, when the engine was brought out, left no doubt that it was the best traction-engine ever built. Several eligible contracts at a distance were at once offered for the employment of this improved engine, but, having no other to supply its place, the directors were obliged, in the interests of the company, to decline those offers, and confine its services to special work in the neighbourhood of London. It had removed for Messrs. John Penn and Son—for whom it was now working—some immense loads of machinery for the large engines they manufacture with far more ease, and occupying much less time, than two of the old engines under similar circumstances. Engineers, and other persons whose opinion is valuable in connection with traction-engines, expressed their approval of its superior arrangement and construction, and at its satisfactory working. The directors were, therefore, much gratified at being able to state that they had gained the support and co-operation of a number of influential noblemen interested in the subject, who, after being personally satisfied of the utility and advantages of Bray's traction-engines, had associated themselves with the company as honorary directors, with a view to promote the general adoption of these engines, and to record their opinion of the important position this agent for economising horse labour would take in the development of commercial and agricultural enterprise both at home and abroad. They had also obtained as their consulting engineer Mr. D. K. Clark, C.E., a gentlemen well known from his great experience and works in locomotive-engines, as well as from his connection with the International Exhibition. Mr. Clark was accordingly now engaged in arranging for the introduction, in a new engine, of all the improvements not fully attained in No. 16, and at the same time so modifying and simplifying the details as to reduce the construction of traction-engines to a principle. Her Majesty's Government had ordered an engine similar in design to No. 16, with the addition of various appliances for transmitting power to other machinery, to be built for permanent service in Woolwich Dockyard, where the directors hoped to deliver it about the beginning of May. Arrangements have been made for the employment of the company's engines, in removing heavy machinery into the International Exhibition. Amongst other work, No. 16 would be engaged to transport thither from the docks some ingots of steel, locomotive engines, and other large masses of machinery, sent by various foreign manufacturers, and also to remove some engines for the Great Western Railway Company. Numerous applications with regard to the purchase of engines continue to be received from every quarter of the world; and now that the directors saw their way to having engines built on thoroughly scientific principles, from Mr. Clark's designs, in which wear and tear, involving maintenance and repair, would be reduced to the minimum of cost, construction be greatly simplified, and reliance on the efficiency of the engine be undoubted, it only remained for the necessary capital to be forthcoming to admit of operations being commenced on an extended and profitable scale. The amount of the present capital, which, with all debts and liabilities, was less than 30,000*l.*, had been subscribed from time to time as it became necessary, by a few individuals interested in the development of the question. For this sum the directors had purchased the original and supplementary patents, with all the plant, fixtures, and rolling stock, and had been enabled to carry on business since the company's formation until the present time, during which period they had gained much valuable experience. A further limited amount of capital was under offer to the company, the deposits in respect of which were in the hands of the company's bankers; but this amount not being adequate to the purposes of the company, the question had been postponed until the present meeting, and it was therefore hoped that sufficient additional capital would now be subscribed.

The engineer's report stated that the distinguishing principle of the engine—the feathering wheel, as it might be called—was of great practical value, and he had endeavoured, in the new design, to embody it in the form best adapted to the purpose. He was confident in the merits of this system of steam traction on common roads as a sound investment, capable of being indefinitely extended.

The CHAIRMAN, in moving the adoption of the report, observed that the directors had at length attained a point for which they had been labouring for years, and which during the course of their operations appeared almost incapable of being realised—not only because great obstacles were thrown in their way, but because it was difficult to make the public understand the full importance of their work. They had now, however, overcome every mechanical difficulty, and they were in a position to employ their traction engines with such facilities, and to such advantage, as they never anticipated. With reference to the question of investment, he would direct attention to the report of Mr. Clark, the engineer, who stated that "he was confident in the merits of this system of steam traction as a sound investment, capable of being indefinitely extended." There was no doubt that, in arriving at this conclusion, Mr. Clark had been guided by great practical experience, and by a perfect knowledge of the subject under his notice; and on the general question, the obvious result of the use of these engines was that, whereas the cost of conveying goods according to the ordinary means of transport was 8*d.* per ton per mile over an average road, the present company were in a position to carry the same goods at the rate of 4*d.* per ton per mile, and with considerable advantage to those who were interested in the undertaking. (Hear, hear.) Moreover, there were many things that could not be removed by any other means than the use of the traction engine, for it was well known that when a large number of horses were employed to draw an unusually heavy burden it was extremely difficult to get them to pull together. In proof of the fact that the project was to be regarded as a good and profitable investment, he might state that, supposing they had 20 engines working at the most moderate rate, they would yield an income to the company of something like 10,000*l.* a year. The demand for the engines was increasing daily, both at home and abroad, and there was a large amount of property in mineral districts that was not worked at all for the want of such means of transport as Mr. Bray's invention afforded. Now came the question whether the engines could not be worked without any detriment to the public convenience; and on this point he would remind the meeting that the same difficulties were presented when the railway system first came into existence that were started in reference to these engines. In regard to the comparative results of the two modes of travelling—the railway system and the ordinary roadway, he had some documentary evidence which was interesting and instructive. There were no complete Government returns upon the subject, but the police were instructed to make returns of all road accidents in the City and metropolitan districts that came within their knowledge; and the result in the year 1859 was that during that period 70 persons were killed by accidents and 878 injured, making a total of 948 persons killed and injured. In the same year the number of passengers killed and injured on railways between the months of July and December (which was the period when, as was well known, there was more travelling than at any other) was 383. He had not been able to obtain the return for the previous six months, but if it were put as double the above figures, it would give 766 deaths and injuries sustained on railways throughout the kingdom, against 948 persons killed and injured to the knowledge of the police in the streets of the metropolis; and during that year, according to the returns, 164 millions of passengers travelled over 102 millions of miles. The comparison was much the same in France, in which country it appeared there were more deaths by accidents from ordinary carriages in one year than by casualties on all the railways in ten years. As regarded the traction-engines belonging to this company, it was a gratifying circumstance that not a single accident had ever occurred through them, except in one instance, and that arose from the fact that one child pushed another child under the wheels. There was a further merit which belonged to these engines in their improved form—that their motion made little or no noise, and the sound which the employment of steam generally produced was skilfully obviated. It was quite clear, under all these circumstances, that the time had now come when all prejudices should be removed, and when the question as to traction engines should be regarded as of great national importance. The directors of this company were in a condition to offer a good investment to the public, and they required only an adequate amount of capital to enable them to achieve the results desired. The subject was scarcely less important than that of the railway system itself, and he sincerely hoped that the present undertaking would ere long attain to that position in the public estimation which its importance ought to command. (Hear.)

The report was adopted, and a resolution passed authorising the directors to take the necessary steps for increasing the capital of the company.

A GENTLEMAN present stated that he contemplated using the engines extensively abroad in connection with a rail system of agriculture, which he explained to the meeting. The directors had kindly placed No. 16 engine at his disposal, for the purpose of making experiments, by means of a spiral spring dynamometer to register up to 8 tons—the accuracy of which he had tested by means of hydraulics—to ascertain the draught power it exerted. It had three wagons attached, loaded with 9000 bricks, the weight, including wagons, being about 30 tons, with which it went to Clapham Common. On the hard road the draught indicated was about 1800 lbs., increasing in some cases where it was very muddy—there having been about 48 hours previous rain—to as much as 2200 lbs. The train went on the grass, which was very soft and slippery from the rain, and drew the load along without difficulty, the draught being about 3000 lbs. The wheels of the engine left an impression in the ground about the depth of ½ in., whilst the wagon wheels made tracks as deep as 2 in. For the purpose of experiment, the train went to a very boggy piece of turf; after moving over it for a short time the wagon wheels sunk to the depth of 6 in. in a bad place, whilst those of the engine were scarcely 2 in. deep. The draught power exerted increased to 4500 lbs., when the wheels of the engine slipped round without moving the train. The driver having gone so far on the plain surface of the wheel, then brought the auxiliary power to bear, and threw out the spades a short distance, which exactly doubled the power of the engine, since the dynamometer registered 9000 lbs., and the engine drew on the load without further difficulty. These figures were quite independent of the power exerted by the engine to move itself. This result was considered entirely satisfactory, since no traction-engine had hitherto been found capable of exerting a greater draught-power than 4500 lbs. It was, therefore, calculated that on increasing the breadth of the tyre of the wheel, and putting on slower gearing, by the use of his rail system of agriculture to guide the implements, one of these engines could draw with ease 30 ploughs after it, ploughing 5 in. deep, at a speed of about 1½ mile per hour, or plough 60 acres per day; and as he could employ it for every purpose of cultivation in large tracts of lands in foreign countries, after reckoning cost of outlay and maintenance at a high rate, he would be able to raise wheat, &c., at the cost of 1*s.* per bushel, as compared with 6*s.* per bushel, which is the present price in Australia.

The retiring directors and auditors were then re-elected, and

Mr. BRAY offered a few practical remarks in regard to his continued endeavours for the advancement of his invention and its application to agricultural purposes.

A vote of thanks to the Chairman and directors terminated the proceedings.

Meetings of Mining Companies.

GREAT WHEAL VOR UNITED MINING COMPANY.

An ordinary quarterly meeting of proprietors was held at the company's offices, Gresham House, on Wednesday,—Mr. GEORGE NOAKES (the managing director) in the chair.

Mr. J. J. TRURAN having read the notice convening the meeting, the minutes of the last were read and confirmed.

The CHAIRMAN then read the report of the committee, as follows:—

The committee have the pleasure to report that the development at Wheal Metal continues to progress most favourably. The bottom levels are highly productive. An improvement of a hopeful character has taken place in the 132, west of Metal shaft, which seems to indicate that the present end is on the back of a new bunch of tin. Should this prove productive, and hold on to meet Ivey's shaft, it will be an important addition, as it is all in whole ground, and may add materially to the reserves. Metal shaft has been sunk 5 fms. below the 152 fm. level, and it is expected that by the next general meeting the 162 fm. level will be in course of driving; it is desirable that this be expedited, to prove the ground below the present levels. Since the last general meeting the pitwork at Ivey's shaft has been replaced by 16-in. pumps; this operation did credit to the agents for the signal success with which it was carried out. The machinery works remarkably well, and the water is held thoroughly in fork. Edwards's shaft has been carried down to the 62 fm. level, and the lode promises to be productive in depth. Two shafts are in course of sinking on the south lode; the ground is of a very favourable character, and there is every reason to hope that it will be equally productive with the Carnmeal lodes in Great Wheal Fortune sett. The shareholders will observe that by the extended operations now in activity the chances of enlarged returns are much increased, and when it is considered how much has been gained within range of Metal shaft only, it may well be expected that Ivey's shaft, Edwards's shaft, and new south lode shafts will, when fully developed, open out the prospect of a large and remunerative mine. The committee beg to refer the shareholders to their report at the general meeting in March, 1860 (when there were no reserves, and the mine scarcely yielded 4 tons of tin per month). It will be seen in that report that, having confidence in Wheal Metal, they believed it would again become productive, and they stated that they proposed to concentrate all their force upon its full and complete development, to husband its resources, obtain reserves, and gradually win a lasting mine. The committee have the satisfaction to state that this policy has been steadily pursued, and the desired results have been in a great measure obtained. Since the period above referred to Metal shaft has been sunk 25 fms., a large extent of ground has been opened out, and a vast amount of dead work executed, all of which have been paid for out of returns. Dividends have been made to the amount of 12s. 6d. per share, and the mine now has reserves of considerable value. The prospects of the mine, too, are more encouraging than they have ever yet been; while the reserves are still increasing, and it is confidently expected that by continuing this same system the mine will not only soon be in a position to maintain increased sales, but, what is of more consequence, become a lasting valuable property to the adventurers.

The audited cash account to Jan. 31 last showed a balance in hand of		£3107	18 0
Since which date there has been received—Tin sale, Feb. 15		1573	2 0
Ditto, March 15		1532	3 10
For old materials sold.....		210	6 3
Sundries from the mines		1	12 0
And paid— Total	£6425	2	1
Jan. cost (including merchants' bills).....	£1220 18 5		
Sundries.....	5 7 1=	1226	5 6
Balance (cash and bills)		£5198	16 7

The accounts stands this day as follows:—

ASSETS—Balance as above.....	£5198	16 7	
Arrears of call.....	12	0 8	
Materials sold	98	5 7=	£5309 2 10
LIABILITIES—Feb. cost (including merchants' bills)	£1279	18 7	
Sundries (office rent, salaries, &c.), say	200	0 0=	1479 18 7
Balance in favour this day.....			£3829 4 3

In consideration of the favourable prospects of the mine, and the above balance in hand, the committee recommend a dividend of 5s. per share.

The agents' report was as follows:—

March 18.—Metal engine-shaft is sunk about 5 fms. below the 152; we have no lode in the shaft, but the ground looks very congenial for mineral. In the 152, east of Metal shaft, we have met with a small cross-course, which has disordered the lode; we expect this lode will be defined again in a few feet driving; this end at present is worth 70*l.* per fm. In the 152, driving west of Metal shaft, the lode is 2 ft. wide, and worth 100*l.* per fm. In the 142, east of Metal shaft, the lode is about 4 ft. wide, and worth 40*l.* per fm. In the 132, west of Metal shaft, the lode is about 3 ft. wide, and worth about 16*l.* per fathom; this end has improved very much within the last few fathoms, which shows that we have good prospects in sinking Ivey's shaft. In the rise in the back of the 152, west of Metal shaft, the lode is 3 ft. wide, and worth about 30*l.* per fm. In the rise in the back of the 152, east of Metal shaft, to communicate with the winze sunk below the 142, the lode is 4 ft. wide, and worth about 70*l.* per fm. In the stopes in the back of the 142, east of Metal shaft, the lode averages about 25*l.* per fathom, and looks well. In the stopes in the bottom of the 132, east of shaft, the lode is 4 ft. wide, and worth 50*l.* per fm. In the stopes in the 122, east of Metal shaft, the lode is 2 feet wide, and worth 15*l.* per fathom. In the stopes in the bottom of the 132, west of Metal shaft, the lode is 1½ ft. wide, and worth about 10*l.* per fm. Ivey's shaft is sunk about 5 fms. below the 100; the lode is about 2 ft. wide, but poor. In the 100, driving west of Ivey's shaft, the lode is about 2 ft. wide, but poor for mineral. At Edward's shaft we have cut the lode; it is about 3 ft. wide, producing a little tin, and looks very promising. On the south lode, near Wheal Fortune, we have sunk three shafts, and we find that the lode is continuous in our sett, and looks very promising to yield well in depth. Our prospects throughout are looking very well. All our machinery is in very good repair, and working well.—T. GILL, F. FRANCIS, S. HARRIS.

The CHAIRMAN said the reports just submitted would put proprietors in possession of the position and prospects of the undertaking, which, he thought, they would consider very favourable. He must say that he felt a happy privilege in being present that day to witness the company's advancement from the slough of despond to the path that appeared to be leading to prosperous success. If proprietors referred to a report presented no longer back than 1860 they would find that Wheal Metal was in an utter state of exhaustion, although the committee confidently believed that in depth it would become a permanently productive property; and, thus believing, they felt themselves justified in holding out every encouragement to the proprietors. By perseverance and a persistent adherence to a judicious economy the Great Wheal Vor Company had now arrived at the very gratifying position indicated in the committee's report just submitted. Since 1860 Metal shaft had been sunk 23 fms., and Ivey's shaft cased, divided, and new work put in from the surface to a depth of 100 fms.; and, in addition, a vast deal of ground had been opened out. At a late committee meeting on the mine most minute calculations were entered into as to the present value of the reserves. He knew that in giving any estimate of the value of the reserves it required great caution, for no person in mining matters could possibly premise what actual results would be realised. But, notwithstanding, the committee thought their calculations were made upon a safe basis, by taking the average of productive ground through which levels had been driven and winzes sunk; and they felt justified in stating that during the two years there had been discovered about 50,000*l.* worth of ore, of which about 20,000*l.* were reserves yet untouched; and he need hardly say that as the deeper levels were brought forward the reserves would, of course, be considerably increased. At the present time more than 5 fms. had been sunk at Metal shaft towards another level, so that in two or three months they hoped to be down to another level, by which another acquisition to the reserves would be made. The committee proposed to continue the system they had hitherto adopted—that is, to develope the mine so as to make it a permanently valuable property. Upon several occasions he had reminded proprietors that no one could exactly say what would be the results; but, looking at what had been done, and at the present state of the mine, with its unusually good prospects, he thought there was before them in Wheal Metal a much more valuable mine than even the most sanguine had anticipated. He might remind proprietors that at the present time there were five shafts being sunk; there were several gentlemen present who were aware that sinking shafts and opening ground were grand points to secure the chances of future success. He had been told that if they sunk Wheal Metal shaft ruin was before them; but he hoped, and confidently believed, that it would be the means, at no distant date, of proving that in Wheal Metal they had a large and profitable mine, and thus confirm all the reports which the committee had from time to time felt justified in presenting to the proprietors. As regarded the recommendation that a dividend of 5s. per share should be declared, all he could say was the committee thought that amount sufficiently large to enable them to hold a good balance in hand, for no one could tell in mining what might happen; the mine itself might be good, and the machinery perfect, yet an accident might occur which would throw them back in their returns, when, if there was not a good surplus balance in hand, the committee, unable to overcome the exigency, would be compelled to make a demand upon the pockets of the proprietors. Under those circumstances, the committee recommended that a good balance should be left to the credit of the account, and thereby maintain a sound financial position. Having congratulated his fellow-shareholders upon the increasingly satisfactory position and prospects of the undertaking, he concluded by moving the reception and adoption of the reports and accounts.

A SHAREHOLDER enquired whether the account for the sale of plant had not been closed?

The CHAIRMAN replied that if by sale of plant was meant the auction sale, that had been closed a long time since. But the item in the accounts referred to the sale of spare and old materials, which, not being required, had been turned into money, and the amount placed in the account.

The reports and accounts were received and adopted. A dividend of 5s. per share was then declared, carrying forward to the credit of the next account 2352*l.*

The committee of management were re-elected.

A PROPRIETOR had much pleasure in proposing the re-appointment of Mr. G. Noakes as chairman of the company.

Mr. DOCKER begged to second the proposition, for to Mr. Noakes not only did the proprietors owe the present position of the company, but to him the company owed its existence; for had it not been for the untiring zeal and ability displayed by Mr. Noakes during the company's days of adversity there could be no doubt the Great Wheal Vor Company would now be among the things of the past.

The resolution being put, was carried unanimously.

The CHAIRMAN, in acknowledging the vote, could only say that whatever zeal he had manifested had been in the discharge of his duty. It was true they had passed through very anxious times, but they had passed away, and there was reason to hope that they had before them a bright future.

Mr. W. Moates was re-appointed auditor for the next three months. A vote of thanks to the committee for past services having been accorded, the usual compliment to the Chairman terminated the proceedings.

GREAT WHEAL MARTHA MINING COMPANY.

A special general meeting of shareholders was held at the offices of the company, New Bridge-street, on Monday,—Mr. THOMAS COOPER SMITH in the chair.

The CHAIRMAN said he regretted the unavoidable absence of Mr. Wright, who usually took the chair on these occasions; but (the Chairman), however, hoped the object of the meeting was so well understood by honourable proprietors that they should be able to get through the business of the day with satisfaction. Mr. Wright, at their annual meeting, held on Feb. 22, so fully explained the state of the accounts, the responsibility the directors had placed themselves under to protect the credit of the company, and the absolute necessity for further sinking, opening, and developing the mine, that he hoped the shareholders had come there to-day heartily to support the resolution that would be proposed for additional capital. At one time it was anticipated that no further capital would have been required, and such would have been the case had the ore only realised about 20s. per ton more, as we produced during the past year 2285 tons, but the price did not come up to what we expected, that it now becomes absolutely necessary we should sink to a greater depth, where we shall, without doubt, obtain ore of a higher standard. We have 262 tons of ore for sale on Thursday next, and it is anticipated we shall have about 350 tons for the next sale. Thus far I think I may safely say our position is a promising one, and if you will kindly support the resolution I am about to move, I have a strong opinion that it will bring us into a state of profit. The Chairman then moved the following resolution:—"That 3500 shares of 1*l.* each be created, and, in the first instance, offered, *pro rata*, to the present shareholders, payable by calls of 5s. per share, but with the option to pay up in full, provided such election be made at the time of acceptance of such allotment, and that the directors be empowered to allow a discount of 2s. 6d. per share on all such fully paid shares; and that the secretary do issue letters of allotment, *pro rata*, to the holding of each registered shareholder; and that each shareholder be requested to signify within 14 days from that date his intention to accept or reject the allotment so made to him, and whether or not he intends to pay up in full, taking the discount; if such election is not made by the day of the date before named such silence to be taken as a refusal; and that in the letter of allotment a memorandum be appended requesting each shareholder to state if he required more than his *pro rata* share, and his number, provided any shares be not taken up by his brother shareholders; and that when any dividend may be declared by the company, it shall be upon the new shares, *pro rata* with the old shares."

The CHAIRMAN said he had received a letter from the Rev. Mr. Birkett, a large shareholder, whose opinion was entitled to the greatest respect. The letter was read. It was an appeal to the board as to whether 2s. 6d. per share was not too much to allow for prompt payment? But it was explained to the meeting that it was an important leverage by which the capital would be promptly obtained, and that the benefit would accrue to the proprietors who accepted those new shares on this condition.

Mr. SEARBY seconded the resolution, and stated that, although the mine was certainly in debt to the extent of 1000*l.* or 1200*l.*, still there was ample means upon the property, in case of need, to meet the liabilities; and that the great necessity for additional capital was to extend the operations by opening new ground, as this was the only means by which returns could be increased.—The resolution was carried unanimously.

The CHAIRMAN reminded the proprietors that this was a special general meeting for the increase of capital, and that it would be necessary to hold another meeting to confirm the resolution passed this day; he, therefore, entreated the shareholders present to attend the next meeting.

A vote of thanks was passed to the Chairman, when the meeting separated.

WEST KAME COPPER MINING COMPANY.

The first general meeting of shareholders was held at Lochwinnoch, on March 14,

Mr. BELL, of Glasgow, in the chair.

About 20 shareholders were in attendance, and after visiting the mines they returned to the public hall of Mrs. Orr, when business was proceeded with. The Articles of Association having been read were unanimously adopted, and signed by 18 shareholders, representing about 300 shares, *pro forma*. They were ordered to be immediately forwarded for enrolment in the proper Court at Edinburgh. The lease of the mine, for 21 years, was read, approved, and is to be forthwith engrossed and executed.

A committee of seven gentlemen, as directors of the undertaking, were elected unanimously, as were also Captain Cornwall Henwood as mine agent, and Mr. J. Reid, of the City of Glasgow Bank, as secretary.

A large number of shares were allotted to applicants, which were further increased after the termination of the meeting.

The report of the proceedings since the commencement of the works gave the greatest satisfaction, and the meeting, which was one of a most agreeable and encouraging character, terminated with a cordial vote of thanks to the Chairman.

[We gather from the report read at the meeting that the floors and mine buildings, consisting of carpenters and smiths' shops, office, and ore-dressing houses, are all complete. The new engine-shaft is down 9 fms. from surface, at which depth a change of ground has been reached in every respect similar to the country surrounding the productive parts of the lodes hitherto seen and wrought upon; only 1 fm. more has to be sunk before the level will be driven to cross-cut the lode; this is expected to be done in about 10 to 12 fms. driving, when doubtless good backs will be at once available. The shipment of the ore at surface was left to the judgment of the directors, but it was generally considered advisable to increase the present quantity of 40 or 50 tons to about 80 tons, or a regular cargo. The share list includes names from Glasgow, Edinburgh, Perth, Dublin, and many distant parts. We are glad to perceive this, as it shows Scotch mining is exciting considerable attention and interest in other places as well as in the great manufacturing metropolis of that country.]

WHEAL ELLEN (SOUTH AUSTRALIA) MINING COMPANY.

The (adjourned) first general meeting of proprietors was held at the company's offices, Threadneedle-street, on Wednesday,—Mr. W. FERGUSON in the chair.

Mr. J. BROWN (the secretary) read the advertisement convening the meeting.

The report stated that, in pursuance of the pledge contained in the prospectus, the directors remitted to Mr. A. Scott (of Adelaide) instructions to obtain a survey and report on the mine, and subsequently confirmed the act of Mr. Scott in taking possession on behalf of the company. The company thus came into possession on March 9 last, from which time the reports have uniformly been of such a character as to strengthen the conviction of the directors as to the value of the property, and they had reason to believe that the advices of November and December from the colony would have announced shipments of silver-lead in such quantity as to warrant the expectation of an early dividend being declared. Advices, however, were received by the last mail that the water having risen in the workings the reserves of ore could not be made available for some time, and that meanwhile a considerably increased outlay was necessary in order to cut down the engine-shaft, and erect the engine, pitwork, &c. The estimate made by the colonial committee of further expenditure required in order to make the mine largely productive is 8000*l.* Allowing for outstanding obligations, and such provision of means as will ensure the full development of the mine in the most economical way, the directors recommend that additional capital should be raised by the creation and issue of 25,000 shares of 1*l.* each, bearing a preferential interest of 7 per cent. until such time as the mine shall have paid two consecutive dividends at that rate. The 2063 unissued shares are not at present to be dealt with. By arrangement with the vendors the property has been obtained for a considerably less cash payment than was originally intended, (say) 11,085*l.* instead of 17,500*l.* The large quantity of rich silver-lead ore raised, the present appearance of the ore-bearing ground, &c., more particularly the increased value of the ores in the deeper levels, the directors are assured, on competent authority, afford sufficient guarantee that under proper management the mine must become highly profitable so soon as the lower levels shall have been drained, and no effort on the part of the directors will be spared to bring about this result.

The CHAIRMAN said it became his duty to move the adoption and reception of the report just submitted, and in doing so he might say the directors regretted very much that it was not of a more gratifying character. Up till the arrival of the December mails the board had felt themselves justified in holding out hopes of a speedy dividend being declared; but that would not be the case, owing to the misfortune of having had the mine, to a certain extent, overflooded with water. It might, perhaps, be advisable that he should explain the steps the directors had taken in the matter. When the company was formed, towards the end of the year 1860, the directors had prepared a most careful despatch, which they forwarded to Mr. A. Scott, of Adelaide, requiring him to obtain a survey of the mine, and pointing out the different matters upon which they wished to be satisfied, in order to enable them to make up their minds as to the desirability of confirming the purchase of the property, as previous thereto there existed only an interim contract. To that despatch Mr. A. Scott, the company's confidential agent, replied on Jan. 26, 1861, at which time, however, he had not finished the report which was asked for. The letter then received from Mr. Scott bore out the statements of the vendors as to the deposit of silver-lead ore, but expressed some doubt as to the supply of water. The question of an ample supply of water (continued the Chairman) was the rock upon which they split. In the meantime, before the directors at all entertained the question of the purchase of the property, this question of water was considered. The board of directors were then aware that there was a deficiency of water, which had hitherto prevented large returns from the ores, but samples were subsequently submitted to competent persons in this country, by whom they were informed that their ores not only did not necessarily require to be dressed by water, but that it would be a much more economical and profitable mode to adopt a certain process, which they explained. This fact was communicated to Mr. Scott, but, notwithstanding, the agents were of opinion that the mine could not be economically developed unless a large supply of water could be obtained. The board knew there was every reason to expect that, by means of a certain cross-cut, an adequate supply of water would be obtained, but, of course, thought it would be very unwise to continue that work before being provided with the means of keeping the water down when obtained. By the next advices, however, they were informed that the water had been accidentally obtained in such quantities as to temporarily render it, for the reason just stated, their greatest enemy. As to the reserves of ores, the local committee believed that they had not been over estimated, but that they were considerably in excess of the amount mentioned in the prospectus. Fair samples of the lodes had, however, been assayed by Messrs. Phillips and Darlington, who had pronounced them to be very valuable. This unexpected supply of water having temporarily rendered unavailable the more valuable parts of the lodes, attention was turned to the upper part of the mine, and proceedings commenced on the western side on a mass of ore. So that up till November and December they had spent all their strength upon these upper and poorer levels. It was then found that the ores thus obtained were of such a nature that it was unprofitable to work them alone, although they would prove profitable when worked with ores of a richer character. But, in the meantime, the richer ores were covered up by this water. Some months ago an engine and pumping-gear were purchased in the colony, but it was found that the original shafts was so narrow that they could not put down the machinery without rendering it unavailable for the working of the mine, so they had been compelled to prepare an engine and pumping-shaft. Those circumstances had brought them into this position—instead of having a large supply of these rich ores, which were opened up, brought to surface, and smelted, so as to realise their value in this country, they had been spending their time in experimenting upon these poorer ore, and in building smelting-furnaces and other erections on the surface, the whole of which would be required presently. In order to relieve the mine of the water with which it is partially filled, they required to get this engine-shaft down, the completion of which, together with the erection of the engine and pumps, and the driving of the different levels, would incur an expenditure of about 8000*l.* As to the value of the mine he thought there could be no doubt, for all the letters to hand were of the most satisfactory description, and the report received on Monday (which appears in another column) was also of a very satisfactory character. His own confidence in the value of the property, as also that of his colleagues, had not in any degree altered, for they still firmly believed that Wheal Ellen would prove to be a permanently profitable mine. Before the mine came into the possession of the present company, when it was the property of private parties, it produced so large a quantity of silver-lead, part of which passed through the hands of his house in Liverpool, that there could be no doubt whatever that it contained ores of a very valuable character. He concluded by moving the adoption of the report and accounts

Mr. P. CHAMPION seconded the proposition.

The CHAIRMAN, in answer to a question, stated that the ores, upon assay, had yielded 20 ozs. of silver to the ton, and 22 per cent. of lead. Messrs. Phillips and Darlington had made an estimate of the cost of producing 1 ton of work lead by the process recommended for adoption; it appeared that it required 10 tons to afford 1 ton of work lead: the cost of producing this would be 32*l.* 10s., while the value of the metals obtained would be 77*l.* 16s. 3d. These calculations referred to the actual cost of the various operations, without reference to agency, transport, and other general expenses.

Mr. BARTLETT said it appeared to him that an injudicious expenditure had been made with regard to the surface erections, and enquired whether the board had sufficient confidence in their agent in the colony?

The CHAIRMAN said it had been a favourite theory with one of the gentlemen, that the ores could only be wrought by water, but he was now in possession of a smelting process which, no doubt, would answer well. The board had the greatest confidence in Mr. Scott, although not a practical mining man, and also in Mr. Spence. The directors, however, had considered the propriety of sending out a thoroughly practical mining manager; and in the event of the money being found, the directors would pledge themselves to do so.

Mr. BARTLETT drew attention to the fact that in July it was stated there could be no doubt the mine was a good property, but that more capital would be required. What he wanted to know was, whence the capital had been obtained from that time to the present?

The CHAIRMAN replied that at that time the board possessed some of the company's capital, with which they had supplied their agents to the extent of their call[illegible] report and accounts were then received and adopted.

The retiring directors, Mr. C. W. Squarey, and Mr. P. Champion, were re-elected. In consequence of ill-health, Mr. James Stubbs resigned the office of director, and the board had elected Mr. H. B. Price to supply his place. The question put, the election was confirmed. Mr. D. Alison, the retiring auditor, was re-elected.

The meeting was then made special.

The CHAIRMAN said the original share capital of the company was fixed at 60,000 12,000 shares of 5*l.* each. In the company's prospectus it was stated that the whole of the payment to the vendors should be half in cash and half in paid-up shares; but capital not having been all subscribed this arrangement was subsequently modified, as stated in the report, 4783 shares being appropriated to the vendors. Of these shares 5154 had been issued, so that 2963 remained unissued. Perhaps proprietors would ask why the directors had not raised more capital upon the unissued shares, rather than create new shares of a different character. The simple reply to which was, that the shares of 5*l.* each seemed to be out of vogue in the present day, and that the shares could not be taken without offering an additional advantage, and the board could not alter those preference shares without an alteration in the Articles of Association; according to their deed, they could at any time pass a resolution at a special meeting to increase the capital of the company. The directors, therefore, after a great deal of consideration, deemed it advisable to suggest that 25,000 shares of 1*l.* each, bearing a preferential interest of 7 per cent. until such time as the mine shall have paid two consecutive dividends at that rate.

After some discussion, it was unanimously resolved that the capital of the company should be increased to any amount not exceeding 25,000*l.* by the creation of 25,000 shares of 1*l.* each; to be called preference shares, and to bear a fixed rate of 10 per cent. per annum, until such time as the mine shall have paid two consecutive dividends on the original capital of the company at the rate of 5 per cent., after which time the preference shares shall be placed on the same footing as the ordinary share capital.

The usual votes were then passed, when the proceedings terminated.

TRUTH'S ECHOES: OR SAYINGS AND DOINGS IN MINE[illegible]

The Mining Share Market has been rather more active during the week, and a good enquiry for many of the leading dividend mines: but the limits which purchasers have given generally fall short of the market quotations, hence many orders have not, as yet, been completed.

DEVON GREAT CONSOLS shares have been in fair demand, but rather scarce.——FRANCES shares have been dealt in, and freely enquired for, in consequence of the improvement.——WHEAL BASSET, WEST BASSET, and EAST BASSET shares have changed hands, the latter at minimum quotations.——WEST SETON and WHEAL SETON continue in demand; the latter has risen considerably.——EAST CARN BREA shares have been largely dealt in, and fairly maintain the recent rise.——NORTH DOWGA shares improved, and many buyers.——NORTH TRESKERBY and NORTH ROSKEAR shares about the same in price, and buyers at minimum rates.——TINCROFT shares are in request at present rates.——WEST TOLGUS, SOUTH TOLGUS, and COOK'S KITCHEN find buyers at dealers' prices.——SOUTH CARADON and WEST CARADON shares in request at present prices.——EAST CARADON shares continue to maintain their price, notwithstanding the fluctuations which have taken place during the week.——MARKE VALLEY shares have been less firm, although there has been a fair business doing in them.——WHEAL LUDCOTT, SOUTH CARADON, WHEAL TRELAWNY, HERODSFOOT, &c., shares have been in fair request.——DRAKE WALLS and TAMAR SOLS shares have been more in demand. An enquiry for LADY BERTHA shares has sprung up, from a supposed improvement in the mine, but no important business has been done.——EAST RUSSELL shares are firm at present prices.

WEST CONDURROWS have fallen, but the impression is that shares at present prices are safe, according to the prospects of the mine.——TOLVADDENS continue firm, and in fair demand.——ROSEWALL HILL AND RANSOM UNITED declined in consequence of reported change in the 80.——WHEAL GRYLLS, GREAT WHEAL FORTUNE, WEST CONSOLS, and KITTY (Leiant) continue in favour, and a good enquiry for the shares maintained.——ROSEWARNE UNITED are not quite so firm, and a few shares changed hands at lower rates.——PROVIDENCE, MARGARET, and TRELTON may be had of buyers.——SOUTH CARADON WHEAL HOOPER is reported to assume a more encouraging aspect. The lode in the winze under the 62 is slightly improved in appearance, and the same level west is looking more cheering.——NORTH PHŒNIX: The shaft is now sinking about 18 fms. below the 120, and they purpose sinking to the 140, which they expect to reach by the coming meeting. The cutting of the lode at that point is looked forward to with considerable interest, as a very important discovery is fully anticipated, especially as sinking the winze in the bottom of the 100 they have some very fine rich[illegible] ore. The 120 is not being operated upon at present, as the great object is to get the lode in the bottom of the 140.

CALSTOCK CONSOLS: The discovery on the Danescombe lode is looking well; that part of the lode is 4 feet wide, yielding full 3 tons of ore per fathom. This is in the 60 level, with the hill rising from 40 to 50 fms. high.——OKEL TOR: The various points are improving throughout the mine, and yielding ore of a better quality. At the bottom taking down of the lode in the 80 and 50 a great improvement is expected. DRAKE WALLS the lode in the 120, west of Matthews' shaft, maintains its value, still worth 30*l.* per fathom, and the ground appears to be changing for the better. The lode in the 80, west of Betteley's, is larger, and producing some good work. Other places much the same as last noticed.

AT KIT HILL UNITED MINE they are progressing very satisfactorily, making their monthly returns of tin. They have not as yet made the communication with the ground; when completed, and the lodes opened upon, there is little doubt but the returns will be augmented by the addition of copper ore. The tin sales for the quarter to Christmas amounted to 13 tons 4 cwts. 1 qr. 8 lbs., realising 875*l.* 4s. 7d.

YARNER is improving in the two winzes sinking below the 20 and 30 fm. level, which are producing good saving work. The two stopes in the back of the 20 are worth 3 and 5 tons respectively, with a good lode in the end. There are other stopes looking well for improvement. They sold 163 tons of copper ore yesterday (Thursday) at Truro. Great progress is making in the erection of the engine-house, &c. The cylinder was hove in yesterday.——CORNUBIA TIN MINE: The underground operations are going on in a very satisfactory and encouraging manner. The increased quantity of work which was formerly done in the eastern mine shows that vast quantities of tin must have been raised from both the north and south lodes, and when the mine is down to the 70 and the lodes cut they will be in a position to make large returns. The 50 east, on south lode, is in a good tinny end, which will open out a large tribute ground, and there are several other levels in this part of the mine which will soon pay well when cleared up. But the western portion of the mine is looked upon as the chief point to which operations are to be directed in future, as the prospect of great reward is being presented. In driving a cross-cut from the two shafts they have intersected a lode of great promise, being highly productive for tin, which has been cut on about 10 fathoms, and when opened at deeper levels will, no doubt, considerably improve the returns. There are several other important points to which attention is being vigorously directed, that when completed is fully expected to bring this mine into a large, profitable, and permanent position.——WEST CONDURROW: From an inspection of this mine by a well-know and thoroughly practical agent, I am led to say that the lode in the winze in the bottom of the 12 is valued at 70*l.* per fathom. The lode is over the elvan, the run of which in the 12 is about 50 fathoms east of Tregoning shaft, and dips east fast. The 24 is 63 fathoms east of the shaft, where the lode was seen, being under the elvan, and for the last 3 fathoms is worth from 10*l.* to 12*l.* per fathom. They appear two distinct shoots of tin, as the winze is apparently down before the 24 end, and may be reached in five or six weeks' driving, the lode being good. The stopes in the back are worth 10*l.* per fathom. They sell on Thursday last 38 tons of tinstuff in the stone, for 123*l.* 10s., and a similar sale is expected to be made next week. None of the work broken from the recent discovery is included in the parcel sold.

At GREAT RETALLACK they have cut into the lode in the 53, but have not reached the footwall; the lode is unusually large, and contains stones of copper and lead sufficient to render a value being placed upon it.——WHEAL HOPE is reported as looking more encouraging; the 28 west bids fair for an early improvement, and they are also breaking good stamps' work for tin on another lode.——At SOUTH FRANCES they have an improvement reported to have taken place in the 54 cross-cut north, which has intersected a lode which, as far as seen, is worth 3 tons of ore per fm.——At WHEAL GRENVILLE, the lode in the 110 west is represented as very beautiful in character, yielding grey and black ore, worth 25*l.* per fathom. The 100 west has been stopped again improving. The other places of importance are without any change, except that has been taken down in the 80, on the new lode, since last noticed.——At ROSEWALL HILL AND RANSOM the recent discovery in the 80, east of Ransom's shaft, has improved in value, but continues a fine course of tin. There is also a slight improvement in the 140, west of engine-shaft, but all other places continue much the same.

EAST ROSEWARNE is represented to be looking highly encouraging; they have a good lode in a winze sinking under the 43 west, and the 55 west is in a very fine and productive lode, and the same level east is valued at full 2 tons per fm. The other places which are holding out very excellent prospects for an early improvement.

ROSEWARNE UNITED: A rumour has prevailed during the past few days that a recent discovery in the 56 had been disordered by a horse of kilias, but I have the best authority, that they have a good course of ore in the present end, 1½ ft. wide, and have also commenced a cross-cut to drive from the 46 north, and the shaft also is commenced from the 46 over the course of ore, and, should it be found, as the respective points to which they are directed, it will prove a valuable acquisition. The other places continue without any obvious change.

TOLVADDEN is represented to hold out the most cheering prospects of great value. great interest is felt in the development of the 77, where they have the same rich copper ore as in the 67. The winze sinking under the 67 is estimated worth 60*l.* to 70*l.* per fm. The 67 has been driven into several feet, but more ground must be spent before they expect to reach the north wall of the lode. The lode is being raised, with a leader of grey ore 6 in. wide, supposed to be the same ore as with in the 77, which is increasing in size as it falls into the level. The 60 end is also improved, and the general appearances of the mine are stated to be of the encouraging character.

CARNYORTH quarterly account was held on the 10th. The financial statement was a loss on the three months of 453*l.* 10s., which, added to the previous debit balance of 1212*l.* 18s. 2d. against the mine. No call was made, as the late aspects of the mine were considered sufficient to anticipate that by the next sales of tin will be augmented. The 88, 76, and 52 are opening out some good ore. There are several other points looking well, and objects to which attention is being directed, which, when completed, will effect a great saving of expense, and increase the sales.

AT EAST CARADON, the caunter lode in 50 east is worth from 7[illegible] to 80*l.* per the breadth carried. The 60 east is worth 55*l.* per fm.—New Lode: The 50 west is worth 20*l.* per fm. The 60 east 12*l.* per fm. Fawcett's lode, in the 60 east, 12[illegible] Through an error in last week's Journal, a paragraph intended for insertion in the mine was introduced below "Marke Valley," thereby representing that a 15s. would be declared at the coming meeting. The whole of the paragraph referred to East Caradon; this correction is deemed necessary, to prevent any misconception.——WHEAL LUDCOTT is reported to be looking remarkably well, and the agent cheering than for some time past. They purpose selling next week 2 tons of tin ore, and from present appearances dividends will be again resumed, and it is hoped be long and continuous.

ST. JUST UNITED: Among the numerous adventures recently brought before the public, perhaps no undertaking stands more prominent for an early and rapid rise. The abandonment of the mine by the last adventurers took place when tin was at the present price, and the result of the examination of the lodes by Capt. [illegible] far as practicable, is of the most satisfactory and encouraging character. [illegible] from his estimation of the value of the lodes left standing that profits may be made from what is in sight; and, with the opinion and judgment of so experienced a practical a tinner, we may fully expect the realisation of sanguine wishes.

SOUTH WHEAL LOVELL: The recent discovery continues to look remarkably well. lode cut is south of Griggs's shaft, and is represented to be 3 ft. wide, [illegible] good work for tin, worth full 45*l.* per fm.——At TRUMPET CONSOLS they are [illegible] in a satisfactory manner. These operations are carried on by means of [illegible] shafts. During the past quarter they have cleared a great many levels, [illegible] nery, divided and secured the several shafts, and are now in a fair way of [illegible] munerated for their outlay. The lodes in the respective places of operation are

…l, but, from the quantity of ground laid open, an average quantity of tin is being …ned. They have sold during the three months tin to the value of 2592*l.* 18s., …h enabled them on the 5th to declare a dividend of 2*l.* per share, carrying forward …ft balance of 392*l.* 1s. 10d.

…ANET AND GRYLLS is looking exceedingly well, and daily expecting a further im…ement; they expect to sell 70 tons of tin for this quarter.——WENDRON CONSOLS …king well at the different points of operation, and they will sell over 60 tons of tin …e quarter, as well as increase their reserves.——TREWORLAS is opening a good …er mine. The accounts and reports presented at the meeting held on Wednesday …more satisfactory than they have hitherto been.——At TREVENEN and TREMEN…t they have not made much progress for the last three months in sinking Tremen…e shaft under the 70, and the greater portion of the men are working, it is stated, on …t is technically termed "owners' account."——At PROSPIDNICK the prospects are …ented as a little more encouraging, a more favourable change having taken place …e ground.

…GREAT WHEAL VOR (Wheal Metal) the lode in the 152 west has greatly improved …week, and 2 feet of the lode is said to be nearly solid for tin, worth about 14 for 20. …lode in the 14½ east is also improving, and the tin has evidently made several …es further east than any of the shallower levels. This is considered a good indi… for Sithney Wheal Metal, in which the engine-shaft is sinking very rapidly to …this lower point.——At GREAT WHEAL FORTUNE the prospects are daily improv… …d the monthly sales of tin increasing. It is calculated that they will sell 90 tons …this quarter.——WHEAL SITHNEY AND CARNMEAL: The prospects in the old mine …not been according to expectation, and after a thorough trial by sinking shafts for …ght proper to suspend the workings in this section of the property, and to devote …whole energies to the development of the Carnmeal part, which, in the judgment …e best practical mine agents and miners, is thought will turn out equally as profit… …as Great Wheal Fortune, Carnmeal, to which it immediately adjoins. In driving …0 fm. level, which is the only level explored, about 20 fms. east of the flat-rod …, a branch or small lode came in from the south, and formed a junction with the …lode, which greatly improved its prospects, it now being worth 10*l.* per fm.—— …r Work Mine, as yet, has not turned out according to the managers' sanguine …tations—the greater part of the tin being raised by tributes from old ground at …tributes. JAMES LANE.

…om Mr. EDWARD COOKE:—The abundance of money, and the low …f interest allowed by the banks ate beginning to have effect on the business of …ining Market. Very large investments have been made during the week in both …ed and progressive mines. Those principally in request have been South Frances, …Caradon, East Carn Brea, Tolvadden, Wheal Grylls, South Caradon Wheal Hooper, …Fortune, Wheal Moyle, East Seton, Rosewall Hill, West Caradon, Treiawny, …r United, &c. ROSEWARNE UNITED shares have not maintained their late rise, …to the recent discovery having failed to a certain extent. This is no more than …nticipated by those acquainted with the bunchy character of the district. In…ference to my remarks last week on ROSEWALL HILL, I am informed by the gentleman …was appointed as the London referee to this mine that he was not in possession of any …ication of the improvement until several days after it had taken place; therefore, …t appears to rest with him on the subject. The discovery at TOLVADDEN promises …e of a most important character. The ore in the winze below the 67 fm. level, and …77 fm. level is very rich, and will average probably from 20 to 25 per cent., or …20*l.* to 25*l.* per ton. A continuance of this—of which there appears to be no doubt …t necessarily place the mine in a dividend state again. The ore at Wheal Neptune, …same lode, and adjoining Tolvadden, was of the same character, from which, in …an 100 fms. driving, and 100 fms. in depth, above 200,000*l.* worth of ore was sold. …e of my readers may not be acquainted with the merits of Tolvadden Mine, I will …for their information that it is in 6000 shares, and 13s. 6d. per share has been paid in …ds. Two steam-engines, crusher, pitwork, and all necessary machinery have been …d and paid for out of the produce of this mine, without calling for a farthing from the …holders. About two years ago a hard channel of ground, or a horse of killas, was …ith, which cut off the ore, and about three months since the first call, of 6 s. per …was made, to pay off all liabilities and provide for the future working of the mine. …77 fm. level an entire change of ground has taken place, and the present discovery …level is evidently the top of a rich deposit of ore. Without wishing to inflate the …of my readers, I merely state the simple facts relative to Tolvadden. My pre…dvocacy of this mine did not originate with the late discovery, but I have con…ly done so, even at its most gloomy period, and have continued to hold an inte…rough good and evil report, and I confidently look forward to a long and pros… career for Tolvadden. The shares are not standing at a very ruinous price, even …prospects were not half so bright. It may be as well to remind those who wish …st in mines that, having regard to their means, let them select a good district like …invest in, stick to it, and it will generally bring them right in the end. The …is an instance of it, and I may adduce many such instances—witness East Caradon, …Valley, Phœnix, &c.

…AL MOYLE is a fair speculation for any capitalist to embark in. There is every… encourage the expectation of this becoming some day one of the most important …in Cornwall. The district is second to none in the world, and, like East Caradon, …y-and-bye attract the attention of the public to its merits as a mining specula… of the first character. PROSPER UNITED is reported to be looking well. This com… their spirit and enterprise, really deserve that success which promises to re… their perseverance, and the outlay of their capital. WEST CARADON is said to be …better than for some time past. WHEAL GRYLLS is going on very favourably, and …will prove all I have said about it. Owing to the intention of not selling any …in the stone, and the burning apparatus not being fixed, there will be no sales …kind for some time to come. There never was a more favourable time for the in…t of capital than the present. Capital must be employed to produce a return to …er, and in well-selected mines 10 to 15 per cent. may be obtained with compara… little risk. There are several mines of this class that will do this; while a few …sive mines may be invested in with a great chance of the capital being doubled …the present year. There seems to be an infatuation just now for the copper mines …stralia. The market price of these adventures lead me to infer that the public are …vourable to speculations in the Antipodes than in their own country. My de… the promotion of our home mines, no doubt, prejudices my mind in favour of them; …ould ask even the most unprejudiced party why the copper mines of Australia …at this moment be standing at such enormous prices, in comparison with many …opper and tin mines in Cornwall? On referring to the list of Foreign Mines, I …e companies in the list the basis of whose operations are in South Australia. The …price of the shares in these stand at 400,000*l.* Not a shilling has been paid by …m in dividends, and it is quite problematical if there ever will be. Now, the …mount would represent more than the present value of Tincroft, East Caradon, …ry, Herodsfoot, and West Caradon, the whole of which will be dividend mines …rs to come. I would ask any practical man to read the reports that are periodi…eived from the Australian mines, and say whether they contain in them suf…inducements to warrant a prosecution of them in England. And even among the …them what has been the result up to the present time of the extravagant reports …ve been circulated relative to their prospects? Ore of the richest quality and un…quantity stated to be cropping up to surface, while the sales have been quite …ale in proportion to the reports. There are many progressive mines in Cornwall …at an absurdly low price, that really contain better prospects than many of these …concerns, and selling at five times less price. It is astonishing with what avidity …the rush into these gigantic concerns, with their 20,000, 30,000, 50,000 or 80,000 …*l.* paid, even at high premiums; while many good progressive Cornish mines may …had into at a less price in the aggregate than is expended by these large companies …minary expenses.

…The latest intelligence from TOLVADDEN is that it continues to improve daily. …sult of an assay of some of the ore from the 77 fm. level gives 39 per cent. of fine …and 8 ozs. 3 dwts. of fine silver to the ton of ore, or, say, worth 30*l.* to 35*l.* per ton.

…ARIZONA SILVER DISTRICT.—Mr. R. Pumpelly read a very inte… paper, entitled "Mineralogical Sketch of the Silver Mines of Ari… at a recent meeting of the California Academy of Natural Sciences. …mpelly fully described the different mining properties, the minerals, …method of working pursued, with some useful general information; he is of …that, before the working of mines in Arizona can become regular and profitable, …and will be necessary. The Apaches must either be exterminated or reduced …ete submission, and this can only be accomplished by a long series of campaigns. …also necessary, without which all supplies and machinery have to be transported …orts from the Gulf of Mexico or the Colorado River. Guaymas, 350 miles, and …os, 150 miles from Tubac, are the natural entrances to the country, and so long …remain in the hands of a treacherous and capricious Government, no enterprise …rish either in Arizona or Sonora. Further, the present unnatural boundary line …ays be a source of trouble, affording a shelter to the robbers and assassins of both …. The substitution of white for peon labour would probably be a failure, owing …abilitating influence which the climate exerts on northerners. The Mexican …good when properly superintended; but, to render it advantageous, the recog… the traditionary custom of peonage is necessary. A thorough code of mining …also much to be desired, for, however well the plan of permitting miners to make …n regulations may be thought to work in gold districts, it will never place silver …on a solid basis; but cannot, on the contrary, act otherwise than prejudicially …terests of both miners and the State. There is but little doubt that, after a few …prepar development, Arizona might become an important source of silver, …its veins do not possess the great thickness of many of the mines of Mexico, …en richness of the ore being greater and more concentrated. Still, it cannot be …to produce the brilliant results obtained in Central Mexico.

…ING WATER.—An improved machine, based upon the properties of …of matter and centrifugal force, has been provisionally specified by …de Clercq and Chazelles, of Brussels. This invention consists in …ing in a horizontal position a wheel, having its boss, or nave, tra…y, and fixed upon, a vertical hollow shaft, terminating at the bottom of a solid …maintained between cross bars or webs, to allow a passage and working in a …bearing. The lower part of the shaft and spindle is placed in the water to be …The rim or circumference of the wheel is composed of a number of cylinders …their ends, and placed near each other in the same direction as the arms. …he boss, or nave, of the wheel there is a hollow truncated cone, traversed by …ow shaft. In the interior of the cone there are partitions arranged so as to leave …ween them. Each of the hollow cylinders carries two pipes extending upwards; …e communicates with the truncated cone, and the other is placed vertically at …end of the cylinder. The length of this pipe is varied to correspond with the …f the hollow shaft between the nave and the bottom spindle. Each of these …pipes has an elbow at the top, directed to the exterier part of the machine. The …ollow from the bottom spindle to the top of the truncated cone. The other part …aft is to be solid, or if not there must be means provided to prevent any com…ion with the lower part. The interior of the hollow part of the shaft commu… with the interior of the cone by apertures near the top. At the top of the shaft …a spindle working in a suitable bearing, and having a pulley or other con… for giving rapid motion to the shaft and parts which are connected with it. …cone has to be filled with water, and rapid motion given to it, and the water …in the truncated cone and horizontal cylinders is powerfully forced towards …ference, and rises in the vertical pipes, from whence it is spirted out, but this …not flow to the circumference nor rise in the pipes without leaving a vacuum …uncated cone and in the horizontal cylinders. The water from the supply re… then drawn through the hollow shaft, and passing through the apertures near …the cone, fills the space from which the water has been forced. The water …aft is in its turn forced outward, which causes another vacuum and aspiration, …A continuous flow of water is thus obtained, the rapidity of which depends …speed given to the machine. The water which passes through the elbows of …al pipes is received in a reservoir, whence it can be led to any place required. …having a communication by pipes between the truncated cone and the hori…ders, longer cylinders may be used, and also several ranges of cylinders may be employed, one above the other, by which means the power of the machine is increased. The hollow shaft or suction-pipe may be materially shortened by causing its lower spindle to work in a socket placed at the bottom of a reservoir full of water, 8 or 9 yards above the supply reservoir. In the socket there are conduits, the bottom of which are in connection with a pipe, which descends to the supply water or other liquid. When the liquid is required to be raised very high several of these machines may be placed one above the other, and put in motion simultaneously from the same moving power.

RAILWAY BRAKES.—Messrs. Edwards, of Coventry, propose to construct, and by suitable bearings attach to and under the floor of the carriage connected with the usual buffers, or with the buffer-springs of the carriage, or otherwise, an apparatus which acts upon the shutting off of the steam, or upon reversing the engine, or upon any other powerful arresting cause on the whole of the brakes fitted to such carriage, and the train is very speedily brought to a stand. After applying the power of the engine, or other means, and communicating back motion for the purpose of shunting on to a siding, or otherwise, the whole of the brakes become released, and cease to act or retard the motion of the carriage. The brake acts by pressure on the rim of the wheel in the usual way, and to each carriage any number of breaks, not exceeding the number of wheels, may be fitted. Each break is mounted on a bar, or on a set of straight springs, attached to, or fitted with, and working upon, an axle between that portion which acts on the wheel and its other end; they place this metal bar, or spring which carries the break, vertically, or nearly so. The axle is attached to the carriage by suitable bearings, causing the axle either to be a positive fixture, or allowing it a horizontal spring motion, as may be desired: the upper end of such bar, or spring, has a hole in which the end of the buffer-rod fits. To each buffer-rod they attach longitudinally along one of its sides three metal fittings, that next the buffer working on a pin fitted to a hole in it, the pin having a head, and being fixed at its other end through a slot in the buffer-rod, and rendered fast by a screw nut, or other suitable fitting, capable of adjustment. The first metal fitting is attached at its other end by a joint to the second, and that to the third, somewhat similarly to the connection of three links of a watch-chain, so as to allow these three pieces to perform, when requisite, a peculiar horizontal motion. The central fitting has attached to its inner edge a projection, having a longitudinal slot, in which is a metal pin, whose motion (when acted upon by another portion of the apparatus) causes the three pieces to occupy a straight line, or, when requisite, to perform a lateral motion, the effect of which is to shorten their aggregate length. The third piece, and furthest from the buffer, has a slot along its centre, which works easily on suitable fittings, allowing, when the other pieces are moved by the pin referred to, an adjustable amount of longitudinal motion. By this arrangement, when the three pieces are in a straight line, the end of the third piece on the buffer being depressed or forced inwards to a certain extent (which extent is regulated by the attachment of the first piece), presses against the side near the upper end, and puts in motion the metal bar or spring carrying the break, bringing into action the break attached to the other end of the same, and continuing such action either as long as such buffer is depressed, or until motion is communicated to the three pieces by the action of the pin working in the slot attached to the second of them. In order to enable a carriage or train to be backed or shunted, it is requisite that on commencing such operation the brakes should cease to act; for this purpose they fasten in a suitable manner the pin working in the slot of the second piece to one of a set of slides and levers fitted to and under the floor of the carriage, which, when brought into action moves the said pin and fittings, and so releases the break or breaks, in consequence of one of such levers becoming acted upon by one of the teeth of a small wheel fitted on to the axle of the wheel or wheels, equi-distant, or thereabouts, from each other, on which the breaks have acted. The difference of pressure of the breaks after the train has been brought to a stand, and the reversing of the direction in which the wheels rotate, enables them to effect such purpose as soon, or thereabouts, as back motion is communicated.

ECONOMIC GENERATION OF STEAM.

The steam generator to which we have already alluded as being introduced by Capt. Fernandez and Mr. Pigna, continues to give satisfaction to those who have adopted it, and a series of highly flattering testimonials as to its working have been collected. Mr. John Imray, of Collinge's Axle-works, Lambeth, where the apparatus is at present at work, has prepared a careful report, showing the comparative results of working the engine with and without the regenerator. He found that without the regenerator the consumption of fuel was 68 cwts. in the week of 60 hours, and that from 48 to 52 cwts. sufficed when the improved regenerator was employed. As the apparatus affects only the steam used for the engine, a steam-hammer, drying-closet, &c., being worked as before, Mr. Imray estimates that the saving is equal to 18 cwts. on 38 cwts., or about 47½ per cent., and he has no doubt that this is a fair estimate. Mr. Imray further states that he has had no trouble in keeping the regenerator in order; indeed, there is little about it that can get out of order, and it is so simple and accessible in all its parts that it could, without difficulty, be put right. He has, by its use, good rid of the great annoyance of filthy water in the boiler, continually depositing mud and forming scale to such an extent that he had always to use solvents, and to open and clean the boiler every other week, removing from it whole barrow-loads of deposits. And even then he was troubled with the muddy water, constantly priming over, not only wasting power, but also grinding down valves, piston, and cylinder.

Although Mr. Imray's engine is the only one in this country to which the apparatus in question has yet been applied, it appears that its use on the Continent was commenced some time since, and that the results fully confirm those obtained by Mr. Imray. With one of the first regenerators made, and without the latest improvements, Mr. Ernest Beudon has ascertained "the saving of fuel to be more than 30 per cent." in his engine, and no repairs have been necessary; Mr. D. Felix declares that the economy of the apparatus was such that he "paid its price in full before the period arranged for settlement;" and Messrs. Dalifol, the malleable iron founders of the Quai Jemmapes, state that they find a saving of 50 per cent. on the fuel consumed, and that the boiler is quite free from incrustation. The testimonials are all dated within the past few days, so that no question can be raised as to the advantages being enduring.

SEPARATING COPPER FROM ITS ORES.—Messrs. Spence and Mellor, of Manchester, provisionally specified some improvements upon Mr. Spence's patent of Nov. 3, 1860. According to the method therein specified the ores were so changed in character by substances as to render the copper soluble in an acid, and one of which substances became the solvent. The plan they now propose is another method of carrying out the said principle, the design being to economise the operation. To effect this they submit the ores in combination with an acid or other substances capable of acting after the same manner to the action of heat in a furnace, so that a condition of copper soluble in an acid is produced, which solvent they subsequently add. The ores as they come from the manufacture of sulphuric acid, or in their native state, after roasting, they grind previously to placing them in the furnace.

CUTTING SLATES AND SLABS.—Mr. R. Harrison, Port-Penrhyn, Llandegai, proposes to use an apparatus which consists of rotating knives, extending nearly from the boss to the rim of the wheel. This knife wheel in revolving runs in close proximity to a fixed knife, and any portion of the slate so placed as to project beyond this fixed knife is cut off.

PUDDLING FORGES.—Mr. R. Jukes, of Sheffield, has provisionally specified an invention, the object of which is to preserve, as far as is practicable, the cast-iron basin and inside lining, or fettling, of the furnace. This he accomplishes by arranging a series of pipes parallel to each other, and adapted in length to the plan of the bottom in such manner that the ends of the pipes are connected within the boundary of the bottom by cross pipes, which renders the whole continuous. The first pipe is connected with a cross length at the end opposite the inlet orifice to the parallel pipe next to it; this pipe is again connected at the same end as the inlet orifice to the pipe next in succession, and so on, in order that the air or water flowing through or injected into the pipes traverses the whole space or area of the bottom, and passes off by the outlet pipe. Pipes for the sides are arranged in a similar manner. The bottom is cast of any required thickness, with the tubes in the middle, forming channels between the top and bottom surfaces. The sides are also formed with the pipes in the middle in one continuous casting.

STEAM-ENGINES.—An invention, the object of which is to obtain additional or increased motive-power in condensing engines, more especially marine engines, has been patented by Mr. E. A. Rippingille, of Prestolu, near Manchester. He employs an additional cylinder and valve apparatus, through which the injection water passes previous to its entering the condenser. The piston-rod of the additional cylinder is connected to the beam or crank of the steam-engine, or otherwise adapted to render the power available. The additional or increased motive-power is obtained by the atmospheric pressure of the injection water in its passage to the condenser acting upon the piston of the additional cylinder.

SUBURBAN DWELLINGS.—Mr. James Mortimer, of Gresham-street, has during the past week submitted to us some plans, sections, and elevations of cottages and houses for the working classes. The scheme is a modification of that of Prince Albert for model cottages; but in Mr. Mortimer's plans space is equally economised, whilst allowance is made for the appropriation of large intervening spaces for drying and playing grounds and gardens, which, by the old-fashioned plan of houses, in rank and file, in streets and terraces, cannot be accomplished except by the assignment to each of a larger area, and the proportionate increase of the rental. The houses are, in fact, compound, each block consisting of two, four, or eight; the arrangement of the rooms admitting of the complete separation of the upper-floor from the ground-floor, and by duplicate kitchens and other domestic offices; providing each family with independent and isolated tenements, in juxtaposition, realising at once the two requisites of privacy and society, with every convenience commensurate with a low rental. The arrangement of the plots of ground is also on the compound principle, each plot forming four, six, or eight gardens, as may be required, divided by invisible iron fencing, and which may be so planted as to harmonise agreeably. It is estimated that by building on this system, besides the advantages to the occupier, the capitalist may secure 12 per cent. for his money.

The Wheal Jamaica Copper Company recently held a meeting, at which it was agreed that as the company is unable, from lack of capital, to prosecute the enterprise any further, the mining properties, &c., be offered for sale.—*Jamaica Morning Journal*, February 25.

MINING AND SMELTING GLOSSARY.—Now ready, price 2s., a NEW EDITION, enlarged, of THE ENGLISH AND FOREIGN MINING GLOSSARY; to which is added the SMELTING TERMS used in France, Spain, and Germany. Published at the *Mining Journal* office, 26, Fleet-street, and may be obtained through all booksellers and newsmen.

MALLEABLE IRONWORKS AND FORGES, AND OTHER SUBJECTS, NEAR AIRDRIE, FOR SALE.

—There will be exposed to PUBLIC SALE, within the Faculty Hall Sale Room, Glasgow, on Wednesday, the 2d day of April next, at Two o'clock afternoon, if not previously disposed of by private bargain,

1.—The GARTNESS MALLEABLE IRONWORKS, situated in the vicinity of the town of Airdrie, and about twelve miles distant from Glasgow.

The works contain EIGHTEEN PUDDLING and FOUR HEATING FURNACES, with suitable MACHINERY, FITTINGS, and APPLIANCES, and there are in connection with them wright and smiths' shops; fitting shop, with small engine for driving turning lathe, and hammer for breaking fettling; pig-iron sheds, iron racks, offices and store-houses; manager's house, consisting of eleven apartments; house of two stories, occupied as a store, with cellarage, office; storekeeper's dwelling-house; 49 workmen's houses; stables to accommodate 18 horses, harness-room, cart and straw sheds, granary and boiler-house.

These works, when in operation, turned out from 160 to 180 tons of malleable iron weekly.

There are also about TWENTY ACRES of LAND, in a high state of cultivation.

2.—The GARTNESS and MOFFAT FORGES, situated in the immediate vicinity of the rolling mills, before described; they are three in number, and are worked partly by steam, partly by water-power. In connection with them are smiths' shop, weighing machine and weighing-house, office and store-houses, and 9 workmen's houses.

The forges are in good working condition, and are capable of making shafts of 10 to 12 tons weight and under.

The locality in which these works are situated is very favourable for obtaining supplies of iron and coal on the best terms, and for communication with the market.

3.—STEADING of GROUND at Rawyards, near Airdrie, feued by the Monkland Iron and Steel Company, from Mr. Gavin Black, of Rawyards, together with the workmen's houses erected thereon. There are twenty-nine separate dwellings, and the feu duty is £11 8s. 8d. per annum.

4.—STEADING of GROUND in Johnston-street, Airdrie, held in feu from the proprietor of Wester Moffat, together with the workmen's houses erected thereon. There are seven separate dwellings, and the yearly feu duty is £3 9s. 10d.

For further particulars apply to M'CLELLAND, SON, and SMITH, accountants, 103, St. Vincent-street; MORRISONS and ANDERSONS, writers, St. Vincent-place; or to BANNATYNES and KIRKWOOD, writers, West George-street, Glasgow, in whose hands are the title deeds and articles of roup.

THE CENTRAL SNAILBEACH MINING COMPANY (LIMITED).

Incorporated on the 1st February, 1862.

Capital £10,000, in 10,000 shares of £1 each. Deposit on application, 2s. 6d. per share. First call, of 5s. per share, made 19th February, 1862. No call can exceed 5s. per share, and three calendar months at least must elapse between each.

DIRECTORS.

JOB TAYLOR, Dudley.
EDWARD HENRY LOWE, Shrewsbury.
GEORGE JOSEPH ENGLAND, Dudley.
JOHN JOB, Snailbeach.

CONSULTING ENGINEERS—Messrs. Phillips and Darlington, 26, Gresham-street, London.
BANKERS—Messrs. Rocke and Co., Shrewsbury.
AUDITORS—John Thomas Bell, Shrewsbury; John Treasure, Newport, Shropshire.
SOLICITOR AND SECRETARY—S. Harley Kough, Shrewsbury and Church Stretton.

ABRIDGED PROSPECTUS.

The company possesses a lease for 21 years, from 25th March, 1862, of the extensive and valuable minerals under Haggestow Hall Farm, two miles from the Minsterly Railway station, and 12 miles from Shrewsbury.

This important sett actually adjoins the western boundary of the permanently profitable Snailbeach Lead Mine, whose drivings are approaching within a short distance of the explorations now being made by this company. The main lode of the former is identified in one of this company's levels.

The strictest investigation by personal inspection is desired.

Detailed prospectuses, reports, plans of the sett, with further information, may be obtained from Messrs. PHILLIPS and DARLINGTON, 26, Gresham-street, London, E.C.; or from the company's secretary, at Shrewsbury or Church Stretton, to whom early applications for the remaining shares are to be made.

THE GREAT DAREN SILVER-LEAD MINING COMPANY (LIMITED).

Incorporated by virtue of the 19th and 20th Vic., c. 47, and 20th and 21st Vic., c. 14.

Capital £36,000, in 12,000 shares of £3 each.

£1 to be paid at the time of subscribing, and the balance, if required, by instalments of 5s. each.

BANKERS—Bank of London, Threadneedle-street.
LOCAL PURSER—C. M. Thomson, Esq., banker, Aberystwith.
SECRETARY—Mr. Thomas Spargo.
REGISTERED OFFICES.
224 & 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C.

The old Daren is one of those ancient mines formerly worked by Sir Hugh Myddleton, from which he derived immense profits, with the inefficient and rude machinery then employed to carry on the works. The ore raised from the lodes in this sett is extremely rich, producing upwards of 40 ozs. of pure silver to the ton, and about 75 per cent. of lead, thus taking the first place amongst the argentiferous lead ores of Cardiganshire.

This property is considered by mining agents and those competent to judge of its value to be one of the richest in the county, and it is fairly assumed, by statistical calculation, that as soon as the old mines are drained, the various levels laid open, and the Cwmsymlog lode fairly developed, a clear profit of £800 per month will be returned to the company; in fact, the refuse thrown away by the old workers is being worked over at the present time at a clear profit of 10s. in 1*l*.

The mine is held under a lease for 21 years from the present time, at 1-14th dues. Ample machinery is already erected to bring it to a successful issue. The operations are being prosecuted with vigour, under the able superintendence of Captain Matthew Francis, and there is every certainty of its being a rich and lasting mine.

Further particulars, with prospectuses and reports, together with plans and sections, and every information required respecting the property, will be furnished on application to the secretary, at the offices of the company.

EAST DELABOLE SLATE AND SLAB COMPANY (LIMITED).

To be incorporated under the Limited Liability Act of 1856-7.

Capital £12,000, in 6000 shares of £2 each, with power to increase.

10s. per share on application, and 10s. on allotment. The remainder in calls (if required) of 5s. per share, and at intervals of not less than three months, of which due notice will be given.

DIRECTORS.

Lieut.-Col. GUMM, 21, Beaufort-street, W., London.
F. B. B. NATUSCH, Esq., Great St. Helen's-place, Bishopsgate-street.
C. NUGENT NIXON, Esq., Westbourne-park-road.
W. S. SUTTON, Esq., Annan-lodge, Brighton.

BANKERS—London and County Bank, Lombard-street, London.
SOLICITOR—C. J. Hampton, Esq., 6, New Boswell-court, Lincoln's Inn.
CONSULTING ENGINEER—Captain Nicholas Ennor, Wells, Somersetshire.
MANAGER AT THE QUARRY—Mr. Gerrance Pethick.
SECRETARY—Mr. W. S. Trotter.
OFFICES,—1, GREAT WINCHESTER STREET, LONDON, E.C.

PROSPECTUS.

This company is established for the purpose of working the East Delabole Slate Quarry, about two miles from the seaport town of Boscastle, on the north coast of the county of Cornwall.

The property, which is within nine miles of the celebrated Delabole Quarries, is held under a lease for 21 years, on a royalty of £1 per man per annum.

The position of the East Delabole Slate Quarry affords peculiar advantages for quarrying the rock and for economically disposing of the produce. It stretches along the sea coast for about a mile, and is full of slate. As the cliff has an average height of 600 ft., the top soil can be thrown over into the sea at a trifling cost, and washed away by every tide, while the dressed slates can be lowered into vessels brought close under the rocks, where a small natural harbour provides a safe berth for the greater part of the year.

Operations have already been commenced, and slate of an excellent quality raised and sent to market.

The directors invite attention to Capt. Ennor's report, on the value of this quarry.

Applications for shares can be made at the offices of the company.

NOTICE.—A considerable number of shares having already been subscribed for, NO APPLICATIONS will be RECEIVED AFTER MONDAY, the 7th of April next.

BRAY'S TRACTION ENGINE COMPANY (LIMITED).

Increase of capital from £25,000 to £100,000, by the issue of 15,000 £5 shares.

Liability limited to the amount of shares held.

HONORARY DIRECTORS.

The Most Noble the MARQUIS OF BREADALBANE.
The Most Noble the MARQUIS OF CONYNGHAM.
The Right Hon. the EARL OF CAITHNESS.
The Right Hon. the EARL OF ESSEX.
The Right Hon. the EARL OF SHREWSBURY AND TALBOT.
The Right Hon. LORD CLAUDE HAMILTON, M.P.

DIRECTORS.

The Hon. REGINALD CAPEL, 21, Chesham-place, Belgrave-square, S.W.
HENRY D. DAVIES, Esq., Spring-grove, W.
CHARLES OSBORN, Esq., 2, St. Stephen's-road, Westbourne-park, W.
CORNWALL SIMEON, Esq., Winchester.
GRENVILLE G. WELLS, Esq., Ashdown House, East Grinstead.

BANKERS—The Union Bank of London, 4, Pall Mall East.
CONSULTING ENGINEER—D. K. Clark, Esq., C.E., 11, Adam-street, Adelphi, W.C.

The directors, after several months' experience with the new engine, in the construction of which so many important improvements have been introduced, and which will be daily employed up to the 1st of May in removing heavy goods to the Exhibition, can now with confidence lay the result of their labours before the public, and submit the undertaking to notice as one of the best investments of the day.

In addition to the sale of engines, from which a large royalty and profit are derivable, the directors are enabled to state that by augmenting the rolling stock to the extent of only 20 engines and trains of wagons, and employing them at the various contracts open to the company, a clear income would be obtained, after working at one-half the cost of horses, of over £10,000 per annum.

A deposit of 10s. per share must be paid on application, which will be returned in full if no allotment of shares is made.

Prospectuses, with testimonials and all further information, will be obtained on application to Mr. S. H. LOUTTIT, secretary, at the offices of the company, 12, Pall Mall East, S.W.

GOLD GETTING MACHINES, for Nova Scotia. Also, the NEW PATENT HYDRAULIC PRESS,

important to shippers, packers, and seed crushers, weighing only a few hundredweights instead of tons. Can be seen at the patentee's, J. WALKER, 17, Cowper-street, City-road.

ASSAYS AND ANALYSES OF EVERY DESCRIPTION

Conducted by JOHN MITCHELL, F.C.S., M.G.A. (late Mitchell and Rickard), Author of "Manual of Practical Assaying," "Metallurgical Papers," &c.

All communications and samples to be addressed (free) to Mr. MITCHELL, care of Mr. Bateman, 28, Moorgate-street, London, E.C.

In the Court of the Vice-Warden of the Stannaries. Stannaries of Cornwall.

IN RE WHEAL REETH MINE.

TO BE SOLD, pursuant to an Order made in a Cause of Pearce and Others *v.* Eddy, dated the 15th day of February last, BY PUBLIC AUCTION, at the Registrar's Office, Truro, on Wednesday, the 2d day of April next, at Twelve o'clock at noon precisely,

2 (240ths) SHARES of the said defendant,

Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Plaintiff's Solicitors, Truro.

Dated Registrar's Office, Truro, March 18, 1862.

The HUNDON FREEHOLD MINERAL ESTATE, with possession, comprising 181 acres, near CAISTOR, LINCOLNSHIRE, with an EXTENSIVE and VALUABLE BED of IRONSTONE.

MR. ROBINS is instructed to SELL, BY AUCTION, at the Mart, London, on Tuesday, the 25th March, at Twelve for One o'clock (unless an acceptable offer be previously made by private contract),

The FREEHOLD MANOR FARM of HUNDON, comprising 181 acres of excellent arable, meadow, pasture, and woodland, with good farm-house, farm-buildings, and labourers' cottages.

A VALUABLE and EXTENSIVE BED of IRONSTONE, from 12 to 14 ft. in thickness, is under the greater part of the estate, which from analysis is found to be of extremely rich quality.

A short railway, of three miles, of easy formation, is only required to bring the produce into direct communication by rail and sea with France, and with the ironworks of Newcastle and Durham, and, by the new railway making from Barnetby to Doncaster, with the West Country.

Hundon is within one mile from Caistor, eight from Brigg, and about twenty from New Holland and the port of Great Grimsby. Stone for burning excellent lime is abundant on the estate. Immediate possession may be had.

Full particulars, with plan and copy of report of an eminent mineral engineer, and chemical analysis, may be had of ROBERT OWSTON, Esq., solicitor, Brigg, Lincolnshire; of Messrs. C. and H. BELL, solicitors, 36, Bedford-row, London, W.C.; at the Auction Mart, E.C.; and of Mr. ROBINS, auctioneer and estate agent, No. 5, Waterloo-place, Pall-mall, London, S.W., who will forward particulars by post on application.

PENHALE MOOR MINE.

MR. WILLIAM HANCOCK WILL SELL, BY PUBLIC AUCTION, on Wednesday, 26th March inst., at PENHALE MOOR MINE, in the parish of St. Enoder, Cornwall, the whole of the MACHINERY and MATERIALS thereon, comprising—

A 33 in. cylinder PUMPING ENGINE, 8 ft. stroke, equal beam, with ONE BOILER.

10 9 ft. 11 in. pumps.	1 10 ft. 12 in. windbore.
9 9 ft. 9 in. pumps.	1 6 ft. 10 in. windbore.
1 6 ft. 9 in. pumps.	2 9 ft. 9 in. windbore.
1 10 ft. 12 in. working.	1 6 ft. 12 in. top doorpiece and door.
1 10 ft. 10 in. working.	1 10 ft. 10 in. top doorpiece and door.
1 10 ft. 8 in. working.	1 6 ft. 9 in. top doorpiece and door.
1 9 ft. 8 in. working.	1 4 ft. 9 in. top doorpiece and door.

8 arm capstan with oak axle, shears, ¾ in. capstan chain, 7-16 horse whim chain, other chain, horse whim, balance-bob at sump shaft, buckets and bucket rods, strapping plates, wood rods, horse whim and winze, kibbles, small shears and shieves, staples and glands, pulleys and stands, bolts and bars, ladders, screwing stocks, flange bolts and rings, 36 in. smiths' bellows, smiths' vice, anvil, smiths' tools, beams, scales and weights, crab winch, a large quantity of plank and other timber, wheel and handbarrows, carpenters' bench, new and old iron, hoop iron, hand saws, small quantities of leather, grease and oil, new and second-hand shovels, chests, &c. Sale to commence at One o'clock precisely.

WILLIAM HANCOCK, Auctioneer
(Agent to the Royal Exchange Assurance Corporation).

Dated Sidney-place, St. Austell, March 12, 1862.

PEREMPTORY SALE, BY ORDER OF THE MORTGAGEE.

VALUABLE FREEHOLD MINERAL ESTATE, IN THE COUNTY OF WORCESTER.

MESSRS. EDWIN FOX AND BOUSFIELD are directed to OFFER FOR ABSOLUTE SALE, by AUCTION, at the Mart, on Wednesday, March 26, at Twelve o'clock, a VALUABLE FREEHOLD PROPERTY, called the WASTE BANK FARM, situate in the parish of OLDSWINFORD, in the county of WORCESTER, and containing about 8 acres 1 rood.

This property is very valuable, on account of its minerals. The existence of the Stourbridge fire-clay and coal mines may be said to be beyond all doubt, as it is found in the pits sunk within a short distance of the boundary of the estate.

May be viewed; and particulars, with several eminent mining engineers' reports, had of Messrs. ROCHE and GOVER, solicitors, 33, Old Jewry; at the hotels and inns in the principal towns of the neighbourhood; at the Mart; and at Messrs. EDWIN FOX and BOUSFIELD'S office, 41, Coleman-street, London, E.C.

PEREMPTORY SALE, BY ORDER OF THE MORTGAGEE.

THE LLANHARRY HEMATITE IRON ORE MINE, GLAMORGANSHIRE.

First-rate investment in a valuable and important mining estate, in working operation, producing improved royalties, and an improved sleeping rent.

MESSRS. EDWIN FOX AND BOUSFIELD WILL OFFER FOR UNRESERVED SALE, at the Mart, on Wednesday, March 26, at Twelve o'clock, a VALUABLE MINERAL PROPERTY, of about FIVE HUNDRED ACRES, comprising the LLANHARRY HEMATITE IRON ORE MINE, adjoining the Llantrissant station on the South Wales Railway, about eleven miles from the docks and shipping port of Cardiff, and nine from Bridgend, most advantageously situate in the rich coal fields and mineral district of the county of Glamorgan, having railway communication, by means of the South Wales and Ely Valley Railways, with the neighbouring ironworks of South Wales, those of Staffordshire, and the best shipping ports of the district. It is on this property that the brown hematite iron ore and coal have recently been discovered.

The quality of the hematite is excellent, and recent analyses prove it to contain from 55 to 60 per cent. of iron, lying close to the surface.

Competent authorities consider that there is sufficient hematite on this estate to supply 3000 tons per week for upwards of 200 years.

Held for a term of 40 years, from the 25th day of December, 1856, subject to a sleeping rent of £300 per annum, and moderate royalties.

The property has been leased to the Llanharry Hematite Iron Ore Company (Limited), for the term under which the same is held, at greatly improved royalties, and at a dead or sleeping rent of £1050 for the first year, £1500 for the second year, and £2100 for the third and every subsequent year. The company are now working the mine, and raising ore. The company have mortgaged their lease for £5000. The right to this sum so secured is also sold.

May be viewed; and particulars, with several eminent mining engineers' report, had shortly at the Mart; the hotels and inns in the principal towns in the neighbourhood; of Messrs. ROCHE and GOVER, solicitors, 33, Old Jewry; and at Messrs. EDWIN FOX and BOUSFIELD'S office, 41, Coleman-street, City.

GLAMORGANSHIRE.

THE BRYNNA GWYNNON COLLIERIES AND IRON MINES, NEAR CARDIFF, SOUTH WALES.

MESSRS. FARGUS have received instructions to OFFER FOR SALE, BY AUCTION, at the Cardiff Arms, Cardiff, on Friday, the 28th March, 1862, at Two o'clock in the afternoon (unless previously disposed of by private contract), the very VALUABLE and IMPORTANT COAL and IRON MINES, extending over 397 acres, situate in the parish of Coychurch, Glamorganshire, near the Pencoed station, on the South Wales Railway, which runs through it for 1½ mile, and to which convenient sidings are attached; with the MACHINERY, BLAST, and other STEAM ENGINES and WATER WORKS erected thereon, known as the BRYNNA WORKS.

The IRON MINES of blackband, overlaid by superior coking coal, and underlaid by a rich argillaceous mine, are in work. A blast-engine, boiler, and engine-house are nearly completed.

A pair of shafts are partly sunk to two seams of superior red ash coal on another part of the property, which will command a ready sale for house purposes, and can be sent to Paddington, and all the towns on the Great Western and South Wales Railway, without break of gauge.

The coke made from the white ash coal is not surpassed for smelting purposes, and there is an abundant supply of clear water in a stream running near the furnace. The surface formation is favourable, with ample spoil room, and the proximity of the Llantrissant hematite ore affords an opportunity of a due admixture with the rich mines on the property, and of making any quality of pig-iron, at a price with which no works in Wales can compete.

This property being near to the port of Cardiff, the extent of the field, the great demand for coke, the small sinkings required for working the veins of large coal, render it one of the most valuable properties in South Wales.

The estate is held for a lease of about 45 years, subject to the rents and royalties therein mentioned.

The property may be viewed, and particulars had of THOMAS JOHNSTON, Esq., solicitor, 5, Raymond-buildings, Gray's Inn; and of Messrs. DANIEL and COX, solicitors, Bristol.

PUBLIC SALE—WILLOW BANK MINE.

MR. G. T. SMITH WILL SELL, BY AUCTION, on the mine, on Thursday, the 3d day of April next, by order of the liquidator of the Willow Bank Mining Company (Limited), the WILLOW BANK MINE SETT, LEASES, MACHINERY, &c.

This sett is situated six miles north-east of Aberystwith, adjoining on the north-east Pen-y-Cefn Mine, and on the east Lletty-Evan-hên Mine, both of which are now being worked by the Lerry Mines Company; on the south it adjoins the East Darren sett, a very profitable mine; and on the west is within half a mile of the Bronfloyd Mine. The main lode, running through the length of the sett (about a mile) is the same as that being worked at Bronfloyd, Lletty-Evan-hên, and Bwich-y-Stellan Mines. The lode is very wide, and strong and highly mineralised. It has been pronounced by competent practical authorities one of the finest and most promising in Cardiganshire, both the lode and the country through which it runs showing "unmistakable signs of a highly favourable character."

On the sett are an agent's house, a smiths' shop, and a powder-house.

The mine, plant, and machinery will be first offered in one lot, and if not sold by Three o'clock in the afternoon on the day above-mentioned, the machinery will then be sold in lots.

Particulars of the leases, conditions of sale, and an inventory of the machinery, &c., may be obtained on application to the liquidator, Mr. R. B. MANN, 117, Bishopsgate-street, Within, London; or to Mr. THEODORE PAUL, or the auctioneer, both of Aberystwith.

For the convenience of persons not able to attend the sale, sealed tenders, to be opened at the time of the sale, will be received by the liquidator in London up to Four o'clock on Tuesday, the 1st of April; and by Mr. THEODORE PAUL, and the Auctioneer, up to the morning of sale.

EAST COLLACOMBE MINE AND MACHINERY,

LAMERTON, NEAR TAVISTOCK.—FOR SALE, this VALUABLE SETT and MACHINERY, on which £6000 has been spent. Lease, 21 years, from August, 1857. The sett contains not only all the rich lodes of Collacombe, but also three other north lodes recently opened on of still greater promise, and all within 75 fms. of the present engine-shaft, and can, therefore, all be worked at one expense by the same engine. The south lode has been cut in the 40 fm. level east, and a cross-cut commenced from the 50 fm. level, which has nearly reached it at that depth.—Apply to Mr. DOWLING, 27, Change-alley; or Mr. ALLEN, 134, Gresham House, Old Broad-street, London.

P.S.—Part of purchase money in free shares.

In Chancery.

IMPORTANT FREEHOLD AND LEASEHOLD COLLIERIES, SOUTH WALES.

MESSRS. FULLER AND HORSEY are instructed to SELL, BY AUCTION, on Wednesday, March the 26th, 1862, at Twelve o'clock (instead of the 12th March, as previously announced), at the Auction Mart, London, in One Lot, by order of his Honour the Master of the Rolls, and with the concurrence of the mortgagee, the very VALUABLE COLLIERIES and OTHER MINERAL PROPERTIES and SURFACE LANDS, freehold, copyhold, and leasehold, belonging to the

RISCA COAL AND IRON COMPANY,

Situate about 6¾ miles from Newport (a safe and commodious port on the Usk, near its junction with the Severn), in the county of Monmouth. There is direct railway communication between the works and the docks and wharfs at Newport, the Western Valleys line of railway running through the property. Vessels of upwards of 1000 tons burden can enter the docks at Newport, or load along the side of the wharf.

The coal fields comprise a tract containing 1044 acres, held under Lord Tredegar, at an unexpired term of 47 years, at a fixed rent of £757 per annum, and 6d. per ton for fire-clay. A tract containing 19 A. 1 R. 31 P., held by the same tenure, at a royalty of 9d. per ton for coal, and 6d. per ton for ironstone. A tract containing 331 A. 0 R. 0 P., held under Lord Tredegar, for 42 years, from 1858, at a royalty of 10½d. per ton for coal, the minimum rent to be £500 per annum. A tract of 112 A. 1 R. 3 P., freehold; and a tract of 128 A. 1 R. 7 P., copyhold, subject to a trifling quit rent and fine.

The surface lands comprise the RISCA FARM, 138 A. 0 R. 11 P., with manager's house and cottages. BUCK FARM, 73 A. 1 R. 28 P., with lime kilns and cottage, agents' house, offices, workmen's cottages, &c., held under beneficial leases.

There are four seams or veins of coal, extending over the principal portion of the entire area, of the thickness of 28 ft. in the aggregate, and known as the Rock Vein, the Big Vein, the Black Vein, and the Sun Vein. The Black Vein is the most valuable; it is a first-class steam coal, and has the reputation on the market of being the best for exporting to the several foreign coaling stations in warm climates, as it is not injuriously affected by the high temperature. The Royal West India Mail Packet Company have shipped it to their foreign coal depôts for upwards of 20 years. The thickness of the seam is 8 ft. 10 in., and the quantity at this time actually raised is at the rate of 80,000 tons per annum. The Rock Vein is a seam of coal of an average thickness of 4 ft. 6 in., and is also used by the Royal West India Mail Company; the quantity now actually raised is at the rate of about 80,000 tons per annum. The Big Vein has now been worked at Risca, but it is ascertained to be well adapted for making coke, or for general manufacturing purposes; the thickness of the seam is 12 ft. The Sun Vein, which also is not now worked, is from 2 ft. 6 in. to 3 ft. in thickness, and has a good roof; it is adapted for a house coal. The general arrangements of the workings are good, many improvements, both in the modes of working and ventilation, having been recently adopted, the result being a material increase in the quantity of coal raised, and a proportionate diminution of the cost of raising. Other improvements, suggested by the Government Inspector and the arbitrator, are in progress.

The PLANT is all in efficient working order, both for winding and pumping, and there are sufficient railway trucks and underground trams for the quantity now being worked.

A contract is now running with the Royal Mail Steam Packet Company for the supply of 100,000 tons of coal per annum, on satisfactory terms, subject to which this sale is made.

Attached to the collieries are FIRE-BRICK WORKS, with the requisite MACHINERY, also STONE QUARRIES and LIME KILNS.

Ironworks could be advantageously introduced, as there is a rich vein of ironstone underlying the seams of coal, and there is limestone in abundance.

There are also SEVENTY-NINE COTTAGES for workmen, residences for clerks and overmen. Suitable offices, and a shop and warehouse, wherein a trade is conducted profitable to the proprietors and of great convenience to the workmen.

The manager's residence and some of the farms are in hand, from which a supply of hay and corn for the horses is obtained. Other farms are let. The total amount of rentals received by the company is £590 6s. per annum.

With the sale of the colliery will be included the company's interest in the large and commodious wharf at Newport, on which are laid three lines of tram rails communicating with the Western Valleys Railway, and running down to three loading stages on the river. The yard forms a depôt for coals, and there are good offices, some labourers' cottages, and manager's house. Also nine coal sheds in the docks at Southampton, let at a rental of £140 per annum.

Surveys and highly favourable reports have been made by eminent mining engineers.

The works may be inspected, and plans and particulars and other information obtained of Messrs. FUTVOYE, SAWTEL, and LIGHTFOOT, solicitors, 23, John-street, Bedford-row; Messrs. CROWDER and MAYNARD, solicitors, Coleman-street; Messrs. CUTLER and TURNER, solicitors, 29, Bedford-square; Messrs. SIMPSON and NORTH, solicitors, Liverpool; Messrs. COLEMAN, TURQUAND, YOUNGS, and Co., Tokenhouse-yard; at the Westgate Hotel, Newport; at the Cardiff Arms, Cardiff; at the principal inns at Bristol and Gloucester; at the Auction Mart; and of Messrs. FULLER and HORSEY, Billiter-street, London, E.C.

GEO. WHITING, Chief Clerk.

TO IRONMASTERS, CAPITALISTS, AND OTHERS.

MR. THOMAS THOMAS WILL SELL, BY AUCTION, at the Castle Hotel, Neath, Glamorganshire, on Wednesday, the 23d of April, 1862, at Four o'clock P.M. (unless previously disposed of by private contract, of which due notice will be given), the LEASEHOLD IRONWORKS, called the ABERNANT IRONWORKS, situate in the VALE OF NEATH, GLAMORGANSHIRE, comprising the IRON MINE, COAL and FIRE-CLAY under about 127 acres of land; three blast furnaces, one cupola, two refineries, hot-blast stoves, calcining kilns, workshops, cast house and appliances for making general castings, 21 cottages and other buildings, and steam engines and other plant and requisites for smelting works.

The works are capable of turning out about 250 tons of pig-iron per week. They situate about 11 miles from Neath. The Neath Canal, which affords communication with the ports of Neath and Swansea, passes through the works, and the Vale of Neath Railway passes near thereto.

Particulars and conditions of sale may be had on application to THEODORE FOX, Esq., Neath Abbey; Mr. GODFREY, at the works; Mr. RANDALL, solicitor, Neath; or of the auctioneer, Neath.

The works may be viewed on application to the said Mr. GODFREY.

BUTE DOCKS, CARDIFF. TO BRASS AND IRONFOUNDERS.

MR. THOMAS WATKINS is instructed to SELL, BY AUCTION, at the Guildhall Auction Rooms, Cardiff, on Thursday, the 3d day of April, 1862, at Three for Four o'clock in the afternoon precisely, all that capital BRASS and IRON FOUNDRY, called the BUTE DOCK FOUNDRY, situate immediately adjacent to the West Bute Dock, Cardiff, and having a branch of the Taff Vale Railway running into it.

It comprises an EXTENSIVE FOUNDRY, with a 16 in. cylinder STEAM ENGINE, boiler and fittings complete; three cupolas, capable of melting 40 tons per week; a boiler-plate furnace, 150 tons of boxes, cranes, blacking mills, drying stoves, and dressing shop; a smiths' shop, with 16 fires; Oliver's cranes, and fan blast; a fitting shop, with five lathes; planing machine, three drilling machines, and three screwing machines; two pattern shops, and a great variety of plant for carrying on an extensive business; an office and office requisites, stable and yard, horses and carts.

All the buildings, machinery, and plant are in excellent condition and working order.

The premises are fenced in by a substantial wall, and are held under the trustees of the Marquis of Bute, at a rent of £200 per annum, for a term of which ten years are unexpired.

This foundry is one of the oldest established in the neighbourhood, having been erected soon after the dock was opened, and is most conveniently situate for carrying on an extensive and lucrative business.

For further particulars, apply to Messrs. GROVER and DAVIS, solicitors, Cardiff; or to the auctioneer, who will show the premises.

VALUABLE FREEHOLD ESTATE NEAR CALLINGTON, IN THE COUNTY OF CORNWALL.

TO BE SOLD, BY TENDER (the highest, above £1450, will be accepted), all that SUPERIOR FREEHOLD ESTATE, known as WILTOWOOD, situate in the parish of St. Dominick, in the county of Cornwall, about half a mile from the town of Callington, comprising about 57 acres, about 12 acres being of fine oak coppice, and the remainder consisting of thriving oak, Scotch fir, and larch, the whole of about forty years' growth.

The estate adjoins, on the north, the East Cornwall and Langford Mines, the former well known as having produced a considerable quantity of silver. The lodes of this, and also of other mines, are supposed (according to the opinion of an experienced surveyor) to run into Wiltown Wood, being only separated from the estate by a small rivulet. This property is surrounded by woods, well stocked with game, and offers to mining men, or others, an opportunity for investment rarely to be met with.

For viewing the estate, apply to Mr. J. C. JOHNS, Callington; and for further particulars and conditions of sale to Messrs. GREGORY and Co., solicitors, 1, Bedford-row, London; or to GEORGE EASTLAKE and Co., solicitors, 15, Frankfort-lane, Plymouth, by whom tenders will be received until and including Monday, the 31st day of March next.

Dated Plymouth, February 25, 1862.

VALUABLE FREEHOLD LAND and PUBLIC HOUSE, known as the KING'S Inn, at SWEPSTONE, in the COUNTY of LEICESTER, with the MINERALS under the same; and also VALUABLE MINES and MINERALS, at LITTLE HALLAM, in the COUNTY of DERBY.

TO BE SOLD, BY PRIVATE CONTRACT, all that VALUABLE PASTURE LAND, with the PUBLIC HOUSE and outbuildings thereon, containing 12 acres or thereabout; and also the TWO SEAMS of COAL thereunder, known as the TOP HARD and the EUREKA, and now working by the Neath Colliery Company and the Greasley Colliery Company.

Also, all those VALUABLE FREEHOLD MINES, BEDS, or SEAMS of COAL and IRONSTONE, lying under certain freehold land and hereditaments, situate at Little Hallam, in the parish of Ilkestone, in the county of Derby, belonging to Mr. Anthony Harris and others, and to the Midland Railway Company, containing 73 A. 2 R. 30 P., 2 A. 2 R. 19½ P., or thereabout, with powers reserved or given to work, get, and win the same.

The above minerals adjoin others of equal value and considerable extent, which may be had on lease upon reasonable terms.

Further particulars and information may be had on application to Mr. WILLIAM JOHNSON, of Whitwick, mining engineer; or to Mr. JAMES HOLT, solicitor, Derby.

IMMENSE DISCOVERY OF SLATE AND FLAGS—DESIRABLE INVESTMENT.

—A few months since an EXTENSIVE and VALUABLE FIELD of SLATES and FLAGS was DISCOVERED, which is now proved to be of the best description, and absolutely unlimited in quantity. It is well situated for export, being about five miles from two seaport towns, with excellent roads all the way. The flags, millions of tons of which may be raised with the greatest facility, are unrivalled for street purposes and flagging, and may be cut into mantle-pieces, tombs, gravestones, &c. A rare opportunity is now offered to the capitalist to PURCHASE a THIRD, HALF, or THREE-FOURTHS, of the above property on the easiest possible terms.—Address, "O. and J.," care of Lee and Nightingale, advertising agents, Liverpool.

MINERAL PROPERTY TO LET.—TO BE LET ON LEASE,

about THREE HUNDRED AND SIXTY ACRES of COAL GROUND, believed to contain the celebrated Rhondda seams of coal, together with the Aberdare seams of coal measures. A large bratticed pit has been sunk on the property, to the depth of 70 yards. The property adjoins the Taff Vale Railway, and is within half a mile of the post town of Pontypridd, Glamorganshire, and 12½ miles from the port of Cardiff.

For terms and further particulars, apply to Messrs. BURNY and CARLISLE, solicitors, square, Lincoln's Inn, London, W.C.; or to ALEXANDER BASSETT, Esq., mining engineer, Cardiff, Glamorganshire.

VENTILATION OF MINES.

ELLIS LEVER,
WEST GORTON WORKS, MANCHESTER,
SOLE MANUFACTURER OF THE
IMPROVED SAFETY BRATTICE,
FOR
AIR-COURSES, FLY-DOORS, AND STOPPINGS,
IN THE
WORKINGS OF FIERY COLLIERIES

ELLIS LEVER DESIRES to INFORM the OWNERS and MANAGERS of COLLIERIES in all parts of the kingdom that THEY CAN BE SUPPLIED at a DAY'S NOTICE with a STOCK of AIR-PROOF BRATTICE DOOR CLOTH of ANY WIDTH, and in VARIOUS QUALITIES, from SIXPENCE PER SQUARE YARD.

Several miles of the FLEXIBLE TUBING, INVENTED and MANUFACTURED by ELLIS LEVER, is now USED for the PURPOSE of VENTILATION in SINKING SHAFTS and EXPLORING DRIFTS. This TUBING is AIR-PROOF and WATER-PROOF, can be made any size, from 6 inches diameter to 3 feet diameter, in unlimited lengths. Every tube is fitted internally with hoops, 12 inches apart, which prevent their collapsing.—Prices and further information will be sent on application to
ELLIS LEVER, MANCHESTER.

Adopted by the Governments of Great Britain, Spain, Denmark, Russia, Brazil, East and West Indies.

EASTON'S PATENT BOILER FLUID,

FOR REMOVING AND PREVENTING
INCRUSTATION IN STEAM BOILERS, LAND AND MARINE.
P. S. EASTON AND G. SPRINGFIELD,
Patentees and Sole Manufacturers,
37, 38, and 39, WAPPING WALL, LONDON, E.,
Or of their Agents in the principal towns of Great Britain and the Colonies.

GREASE'S PATENT EXCAVATING MACHINERY,

for SUPERSEDING the SLOW and EXPENSIVE USE of MANUAL LABOUR in SINKING SHAFTS, DRIVING LEVELS, TUNNELLING, &c., is guaranteed to work through any rock of average hardness at a minimum rate of 1 fm. per diem, and sink shafts at the rate of 2 fms. in three days.

Mr. GREASE will undertake contracts for sinking shafts, driving levels, &c., at an ensuring reduction of time and great saving in cost.

All applications to be addressed to Mr. GEORGE T. CURTIS (sole agent), 17, Gracechurch-street, London, E.C.

By providing the power of calculating the time and cost to explore a certain depth and extent of ground, speculation in mining will be assimilated to commercial pursuits, with this unmistakable advantage—that when the ground has been once carefully and previously selected, and operations properly and systematically carried out for its development, there would be far less chance of unsatisfactory results than are met with by merchants and manufacturers in the usual routine of their business. As this important invention must beneficially interest the landowners, mine proprietors, merchants, and miners, we opine it will meet with immediate adoption.—*Mining Journal.*

PATENT BITUMINIZED GAS, WATER, AND DRAINAGE PIPES.—These PIPES POSSESS all the PROPERTIES NECESSARY for the CONVEYANCE of GAS and WATER, and also for DRAINAGE PURPOSES—viz., GREAT STRENGTH, GREAT DURABILITY, and PERFECT INOXIDABILITY, being non-conductors are not affected by frost, like metal pipes. They are proved to resist a pressure of 220 lbs. on the square inch (equal to 500 ft. head of water), are one-fourth the weight, and considerably cheaper than iron pipes. They are made in any lengths, and the joinings are simple and inexpensive. These pipes have been in use in France, Spain, and Italy nearly three years, where the demand for them is very great. The opinions of the press on a public test at the Houses of Parliament, before a number of engineers and other scientific gentlemen, may be had, with further particulars, at the office of the company, on application to Mr. ALEX. YOUNG, 14A, Cannon-street, London, E.C., where sample pipes may be obtained for trial.

ASSAY OFFICE AND LABORATORIES,

29, GREAT ST. HELEN'S, and FORD ROAD, OLD FORD.

THE PARTNERSHIP between MITCHELL AND RICKARD having EXPIRED, the BUSINESS will in future be CONDUCTED, as hitherto, under the PERSONAL SUPERINTENDENCE of W. T. RICKARD, F.C.S. (Assayer of the Precious Metals, by special authority of the Chilian Government), who will pay all outstanding debts of the late firm.

LAW LIFE ASSURANCE SOCIETY,

FLEET STREET, LONDON.
ESTABLISHED 1823.

The invested assets of this society exceed £5,000,000; its annual income is £495,000.

From 31st December, 1861, the society had paid in claims upon death—

Sums assured	£4,329,378
Bonus thereon	1,115,298
Together	£5,444,676

Profits are divided every fifth year. All participating policies effected during the current year will, if in force beyond 31st December, 1864, share in the profits to be divided up to that date.

The divisions of profits hitherto made, reversionary bonuses exceeding £3,500,000 have been added to the several policies.

Prospectuses, forms of proposal, and statement of accounts, may be had on application at the Actuary, at the office, Fleet-street, London.

January, 1862. WILLIAM SAMUEL DOWNES, Actuary.

THE BRITON LIFE ASSOCIATION AND NEW EQUITABLE LIFE ASSURANCE COMPANY.

OFFICES—449, WEST STRAND, and 52, MOORGATE-STREET, CITY.

TRUSTEES.

BARLOW, M.D.	JOHN PROPERT, Esq.
JAMES DUKE, Bart., Ald., M.P.	W. TYLER SMITH, M.D.
CHARLES HASTINGS, M.D., D.C.L.	FRANCIS WEBB, Esq.
PETTRIDGE, Esq., F.R.S,	

CHAIRMAN OF THE BOARD—George H. Barlow, M.D.
DEPUTY CHAIRMAN—Francis Webb, Esq.

The peculiarly equitable manner of dividing the profits, the policies issued by this association become payable during the lifetime of the person assured without extra charge. After having been in force a period of five years, all policies are absolutely indisputable and indisputable.

The attention is directed to the facility afforded by this institution for the assurance of diseased or diseased lives. The experience of the large staff of medical officers connected with this association has enabled the directors to prepare a set of tables which they can place such lives on an equitable footing in relation to other assured members of the company.

The invited medical attendants who are named by proposers to this association are consulted as the medical advisers of the directors, by whom all medical fees are discharged. Every description of life assurance transacted; terms for which, with detailed prospectuses and every information, may be had on application to

JOHN MESSENT, F.S.S., Sec.

*** Applications for Agencies are invited.

ALBERT AND MEDICAL LIFE ASSURANCE,

7, WATERLOO PLACE, PALL MALL, LONDON, S. W.
ESTABLISHED 1838.

The business of the Medical, Invalid, and General Life Assurance Society having been incorporated with the Albert Life Assurance Company, the united business will hence-forward be carried on under the above title.

The accumulated fund exceeds	£500,000
The subscribed capital	447,180
The paid-up capital	137,000
The annual income from life premiums, upwards of	220,000

The new business is now progressing at the rate of more than £25,000 per annum. By Prof. De Morgan's report upon the last valuation of liabilities (end of 1858), and by statements of accounts, it appeared at that time that the surplus in favour of the business alone, after providing for every liability, was £192,925 2s. 11d.

HENRY WILLIAM SMITH, Actuary.
C. DOUGLAS SINGER, Sec.

AUSTRALIA AND NEW ZEALAND

WHITE STAR EX-ROYAL MAIL CLIPPERS,
SAILING FROM
LIVERPOOL to MELBOURNE on the 1st and 20th of every month.

Passengers holding Victoria passage warrants will be forwarded to Melbourne by steamers.

	Destination.	Register.	Burthen.	To sail.
AUSTRALIA	Melbourne	1500	4500	April 20.
SOUTH A. BRIGHT	Melbourne	1446	4300	May 20.
OF THE NORTH	Melbourne	1650	5000	June 20.

The magnificent clipper ship, *Great Australia*, now just returned from her first voyage out, will be again dispatched from Liverpool for that port as the packet of the 1st. She was constructed expressly for the Australian passenger trade, of the best materials, and equipped with all the most recent improvements. Her recent and rapid voyage has proved her to be a fast and comfortable ship, and her accommodations for the classes of passengers are of the most complete and satisfactory character. Saloon passengers are provided with bedding, linen, and all necessaries. Passengers embark on the 20th April.

For freight or passage apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., 124, Bishopsgate-street, and 55, Parliament-street; or SEYMOUR, PEACOCK, and Co., 116, Fenchurch-street, London. Messrs. Willcox's Australian and New Zealand hand-books sent for two stamps.

LAKE SUPERIOR, U.S.—Mr. G. W. HAMBLIN, Post Master, Sault Ste. Marie Post-office, Marquette County, Lake Superior, U.S., has opened an office for the purpose of supplying mineralogical specimens generally, but more particularly such as are peculiar to the district, to museums and collectors throughout the world. From his acquaintance with the different localities on the Lake, and with mining men, he has facilities for collecting minerals, also for procuring the rarer sorts. Residing in the centre of the iron district, Mr. Hamblin can furnish specimens of ores of every variety as cabinet specimens, of which the mammillary and stalactitic forms are worthy a place in any cabinet. He can also supply specimens of native copper and silver, with the accompanying minerals, many of which occur as crystals, which are objects of interest to the collector. Collections made up of all sizes and states of richness, from the value of $25 (or £5 sterling) to $200. Letters of enquiry or orders must be post paid.——P.S.—On receipt of £5 sterling Mr. Hamblin will forward a set of iron specimens; also, native copper and silver.

The set is as follows will be supplied at from $2 to $4 each:—Quartz, calc spar (Dog tooth and other varieties), epidote, greenstone, prehnite (with copper), black oxide copper, chlorastrolite (found only at Isle Royale), native copper (crystallised), calc spar, radiated epidote), ripple marked quartz (from the metamorphic strata), and a variety of others illustrative of the geology and mineralogy of this part of the world. For the convenience of remittance, the smallest collection which can be forwarded is (for £5 sterling).

BY HER MAJESTY'S ROYAL LETTERS PATENT.

MESSRS. ALLCHIN AND SON, PATENTEES and MANUFACTURERS of an IMPROVED STEAM SUPERHEATING APPARATUS, SUITABLE for PORTABLE, LOCOMOTIVE, STATIONARY, and MARINE BOILERS. Can be applied to old as well as new, EFFECTING a SAVING in FUEL of THIRTY-FIVE to FORTY PER CENT., and a surprising INCREASE in the POWER of the ENGINE, likewise a REDUCTION of TWENTY-FIVE to THIRTY PER CENT. in FEED WATER.

TO BE SOLD, a bargain, a 10 horse BEAM CONDENSING ENGINE and BOILER, in good working condition. Price, £50. The room is required, as a larger engine has been supplied.—For particulars, apply to ALLCHIN and SON, Globe Engine Works, Northampton.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM.

BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.
IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—WILLIAM HARRISON AND CAMM HAVE ON HAND RAILWAY, COAL, COKE, AND MINERAL WAGONS, ON SALE OR HIRE,
AT THE ROTHERHAM WAGON WORKS, MASBRO'.

THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS RAILWAY WAGONS FOR HIRE.
Apply to the SECRETARY, 3, Newhall-street, Birmingham.

THE RAILWAY CARRIAGE COMPANY, OLDBURY, NEAR BIRMINGHAM.

MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.
NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.
LONDON OFFICES,—No. 1, MOORGATE.

TO RAILWAY COMPANIES, CONTRACTORS, COAL AND IRONMASTERS, WAGON BUILDERS, &c.—The BEST and CHEAPEST LOCOMOTIVE GREASE is MANUFACTURED by BUCKNELL, CHESTERFIELD. Only one quality made. A trial is solicited. References given to some of the principal coal owners in the district. Sample casks from 2 cwts. upwards.

Chesterfield, February 6, 1862.

NOTICE TO RAILWAY COMPANIES.—A RAILWAY SIGNAL of a NOVEL DESCRIPTION (patented) is NOW IN OPERATION on the MANCHESTER AND ALTRINCHAM RAILWAY, which GIVES NOTICE of the APPROACH of a TRAIN HALF A MILE OFF, and, if required, can announce it at any other given distance. It is novel and simple in its construction, not a single complicated movement in it, and when laid down will not require repairs for years. A model may be seen at the *Mining Journal* office, 26, Fleet-street, London, in the course of a week, and a gentleman will shortly call on the different railway companies centering in the metropolis to give any required explanations.

JOB TAYLOR AND CO., SWAN FOUNDRY, OLDBURY, NEAR BIRMINGHAM,

SOLE PROPRIETORS of HINTON'S PATENT CUPOLA, which CONSUMES FIFTY PER CENT. LESS COKE than any cupola yet invented. MAKERS of ALL KINDS of MACHINERY connected with the GRINDING and TEMPERING of EVERY SORT of CLAY or MARL, and for the MANUFACTURE of BRICKS, TILES, DRAIN PIPES, &c. Also, of HIGH and LOW PRESSURE STEAM ENGINES of any dimensions, and of GENERAL MACHINERY.

GEORGE WHITEHOUSE (late James Colley and Sons), MANUFACTURERS of BOLSTER PINS and BOXES, BOLTS and NUTS, WOOD SCREWS, LIFTING JACKS, RAILWAY SPIKES, RIVETS, and EVERY DESCRIPTION of RAILWAY FASTENINGS.
HOPE WORKS, WEST BROMWICH. (ESTABLISHED 1815.)

SHORTRIDGE, HOWELL, AND CO., HARTFORD STEEL WORKS, SHEFFIELD, SOLE MANUFACTURERS of HOWELL'S PATENT HOMOGENEOUS METAL PLATES for BOILERS, LOCOMOTIVE FIRE BOXES, and TUBES, COMBINING the STRENGTH of STEEL with the MALLEABILITY of COPPER. RUSSELL AND HOWELL'S PATENT CAST STEEL TUBES. McCONNELL'S PATENT HOLLOW RAILWAY AXLES.—For prices and terms, apply to SHORTRIDGE, HOWELL, and Co., Hartford Steel Works, Sheffield; or Messrs. HARVEY and Co., 12, Haymarket, London.

CORNISH BORER STEEL.—Upwards of ONE HUNDRED AND SIXTY MINES are SUPPLIED with this STEEL, and the DEMAND for it is RAPIDLY INCREASING.—For terms, apply to R. MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.

CYANOGEN STEEL, CAST STEEL, SHEAR STEEL, and IMPROVED FOREST L BLISTER STEEL supplied to order by ROBERT MUSHET and Co., Forest Steel Works, near Coleford, Gloucestershire.
Address to the Works, Coleford.

TO COAL OWNERS AND COKE BURNERS.

MACKWORTH'S PATENT COAL WASHER, OR PURIFIER.—This MACHINE will EXTRACT the SHALE and ALL HEAVY IMPURITIES from SMALL COAL at a COST of TWOPENCE PER TON.—For particulars and references, apply to the makers, A. and T. FRY, Temple-gate Works, Bristol; or to Mr. Jos. RIDER, Basinghall-street, Leeds.

WIRE-ROPE TESTING.

PUBLIC TEST of A. J. HUTCHINGS AND CO.'S PATENT WIRE-ROPE at LIVERPOOL, FEBRUARY 27, 1861.

[From the *Daily Post* of March 1, 1861.]

On Wednesday, the 27th of February, a series of EXPERIMENTS on WIRE-ROPE took place at the Corporation Testing Works, King's Dock. The specimens tested were manufactured by the well-known firm of A. J. HUTCHINGS and Co., of Millwall, London, the Contractors to the Lords of the Admiralty and various foreign Governments, the character of whose rope is so well known in this country, as well as all parts of the Continent. Capt. Ducraft, of H.M.S. *Hastings*, and a number of other gentlemen connected with shipping, were present to witness the experiments, all of which were considered highly satisfactory, and in every respect sustained the reputation of the manufacturers. The following are the results of the experiments:—

An 8 in. rope bore 70 tons WITHOUT BREAKING.
Circumference and breaking strain.

2¼	2⅝	3	3⅛	3⅜	4	4⅛
10¾ tons	14 tons	20 tons	27 tons	29 tons	32¾ tons	45½ tons

N.B.—The 2¼, 3, and 4 in. ropes were the sizes actually tested. The remaining sizes and strains are comparative.

THE ABOVE ROPES ARE FOR COLLIERY USE.

Size. Inches.	Hutchings and Co.'s wire-rope for ships' rigging. Tested Feb. 27, 1861.	Newall and Co.'s Test of Oct. 29, 1860.	Garnock, Bibby, and Co.'s Test, Oct. 29, 1860.
2	5 tons 15 cwts.	—	—
2¼	11 „ 14 „	7 tons 15 cwts.	8 tons 16 cwts.
2⅝	16 „ 10 „	—	—
3	22 „ 8 „	—	18 „ 5 „
3⅛	23 „ 10 „	16 „ 10 „	—
3⅜	29 „ 10 „	18 „ 15 „	—
4	37 „ 15 „	—	26 „ 10
4½			

N.B.—The 2, 3⅜, and 4 in. ropes were the actual sizes tested. The remaining sizes and strains are comparative.

The above tests certified by Mr. M'Donald the Superintendent of the Corporation Testing Works, Liverpool.

TEST OF WIRE-ROPE AT LIVERPOOL.—The value of Messrs. Hutchings's statement, relative to a test of their manufacture, will be properly estimated when it is known that the ropes were brought down from London specially prepared for the purpose, and not taken promiscuously from their stock, as the samples tested in October were.

The following, extracted from the *Mining Journal* of November 10, 1860, shows the relative strength of the different makers' ropes on that occasion. The samples tested were privately purchased some time previously, and spliced for testing by Newall and Co.'s workmen. The test took place in the presence of representatives from the manufacturers, reporters for the press, and a large number of gentlemen connected with mining and shipping in Liverpool:—

	SIZE OF ROPE TESTED. 3½ inch.	2½ inch.
Garnock, Bibby, and Co.'s broke at	18 tons 5 cwts.	8 tons 15 cwts.
R. S. Newall and Co.'s	16 „ 10 „	7 „ 15 „
A. J. Hutchings and Co.'s*	11 „ 10 „	5 „ 0 „

* Messrs. Hutchings's samples were from 1-16 to 3-16 over size.

From this it will be seen that the breaking point of Garnock, Bibby, and Co.'s ropes was on the average 13 per cent. over the guaranteed strain, while those of Hutchings and Co. were 30 per cent. below it.

GARNOCK, BIBBY, AND CO.,
SWAN HEMP AND WIRE-ROPE WORKS, CHAPEL STREET, LIVERPOOL.

Flat and round wire-ropes of steel and charcoal iron for mines, inclines, &c., of first quality wire, and highest standard of strength.

HALL AND WELLS, PATENTEES AND MANUFACTURERS OF SUBMARINE TELEGRAPH CORES, CABLES, &c.—TELEGRAPH CONDUCTORS INSULATED with INDIA RUBBER at £5 per mile and upwards, PARTICULARLY ADAPTED for MINING PURPOSES. Further particulars as to price of cores, cables, &c., can be had on application at 60, Aldermanbury, City, E.C.; and Steam Mills, Mansfield-street, Borough-road, Southwark, S.E.
Copper wire covered with silk, cotton, or any other material, to order.

PATENT LEVER BREAK, FOR RAILWAY WAGONS, doing away with the objectionable break rack. Can be APPLIED to EXISTING STOCK at a TRIFLING EXPENSE. Royalty moderate. Models can be seen at No. 1, Moorgate, London, E.C.; and the breaks in action at the works of the Railway Carriage Company; at the Peterboro' Station, on the Eastern Counties Railway; the Rugby Station, London and North-Western Railway; the Cardiff Docks Station, Taff Vale Railway; and at the Works, Oldbury, near Birmingham, where all communications are requested to be sent.

BEDFORD IRONWOKS, TAVISTOCK.

NICHOLLS, WILLIAMS, AND CO. have generally a GOOD STOCK of SECOND-HAND MINING MATERIALS FOR SALE. They also MANUFACTURE STEAM ENGINES of every description on the newest principle. Castings and wrought-iron work made at the shortest notice. Machinery sent to all parts of the world. Steam boilers and chains warranted of the best description.

AYTOUN'S PATENT SAFETY CAGE AND HOIST. CHANGE OF LICENSE FEE WILL SHORTLY TAKE PLACE, from £1 to £6 and upwards.
[See *Mining Journal* of March 15.]
Apply to the patentee, ROBERT AYTOUN, 3, Fettes-row, Edinburgh.

PATENT SAFETY FUSE.—The GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH DAVEY, and PRYOR who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which, being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.

Address,—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

BASTIER'S PATENT CHAIN PUMP, APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY APPLICABLE TO ALL KINDS OF MINES, DRAINAGE, WELLS, MARINE, FIRE, &c.

J. U. BASTIER begs to call the attention of proprietors of mines, engineers, architects, farmers, and the public in general, to his new pump, the cheapest and most efficient ever introduced to public notice. The principle of this new pump is simple and effective, and its action is so arranged that accidental breakage is impossible. It occupies less space than any other kind of pump in use, does not interfere with the working of the shafts, and unites lightness with a degree of durability almost imperishable. By means of this hydraulic machine water can be raised economically from wells of any depth; it can be worked either by steam-engine or any other motive power, by quick or slow motion. The following statement presents some of the results obtained by this hydraulic machine, as daily demonstrated by use:—

1.—It utilises from 90 to 92 per cent. of the motive power.
2.—Its price and expense of installation is 75 per cent. less than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility and economy.
5.—It raises with the water, and without the slightest injury to the apparatus sand mud, wood, stone, and every object of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or attention.

A mining pump can be seen daily at work, at Wheal Concord Mine, South Sydenham, Devon, near Tavistock; and a shipping pump at Woodside Graving Dock Company (Limited), Birkenhead, near Liverpool.

J. U. BASTIER, sole manufacturer, will CONTRACT to ERECT his PATENT PUMP at HIS OWN EXPENSE, and will GUARANTEE IT FOR ONE YEAR, or will GRANT LICENSES to manufacturers, mining proprietors and others, for the USE of his INVENTION.

OFFICES, 47, WARREN STREET, FITZROY SQUARE.
London, March 21, 1859. Hours from Ten till Four. J. U. BASTIER, C.E.

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THE MINING SHARE LIST.

DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid
1000	Alderley Edge (Cheshire) [L.]*	10 0 0	60		6 13 6.. 1 10 0	Jan. 1862
4000	Bedford United (copper), Tavistock†	2 6 8	5	5 5¼	12 11 6.. 0 3 0	Dec. 1861
240	Boscean (tin), St. Just†	20 10 0	60		35 10 0.. 1 5 0	Dec. 1861
200	Botallack (tin, copper), St. Just	91 5 0	250		445 15 0.. 2 10 0	Feb. 1862
1000	Carn Brea (copper, tin), Illogan†	15 0 0	72½		271 10 0.. 2 0 0	Jan. 1862
200	Cefn Cwm Brwyno (lead), Cardigansh.	33 0 0	33		9 0 0.. 4 0 0	April, 1861
2450	Cook's Kitchen (copper), Illogan	17 0 9	31½	31 32	1 0 0.. 0 7 0	Jan. 1862
256	Copper Hill (copper) Redruth	48 0 0	105		4 10 0.. 2 0 0	Jan. 1862
12000	Copper Miners of England	25 0	25		7¼ per cent.	Half-yrly.
350000	Ditto ditto (stock)	100 0 0	24		1 per cent.	Half-yrly.
1055	Craddock Moor (copper), St. Cleer*	8 0 0	29	29 31	6 12 0.. 0 7 0	Jan. 1862
512	Creegbrawse and Penkevil, St. Colomb	—	5		0 10 0.. 0 10 0	Jan. 1862
867	Cwm Erfin (lead) Cardiganshire	7 10 0	20	20 21	6 18 0.. 0 15 0	Jan. 1862
128	Cwmystwith (lead), Cardiganshire*	60 0 0	200		235 10 0.. 4 0 0	Jan. 1862
280	Derwent Mines (sil.-lead), Durham	300 0 0	180		142 0 0.. 5 0 0	June, 1861
1024	Devon Gt. Con. (cop.), Tavist.* [S.E.]	1 0 0	420	412½ 417½	782 0 0.. 8 0 0	Jan. 1862
358	Dolcoath (copper, tin), Camborne*	128 17 6	580		657 10 0.. 9 0 0	Feb. 1862
3000	Dyffngwm (lead), Wales	12 6 6	10		0 5 0.. 0 2 6	Nov. 1861
512	East Basset (cop.), Redruth [S.E.]*	29 10 0	47	44 46	36 0 0.. 3 0 0	Jan. 1862
6144	East Caradon (copper), St. Cleer [S.E.]	2 14 6	33	33½ 34	2 5 0.. 0 15 0	Jan. 1862
300	East Darren (lead), Cardiganshire*	32 0 0	45		79 10 0.. 1 0 0	Dec. 1861
1400	Eyam Mining Co. (lead), Derbyshire	5 0 0	—		20 3 4.. 0 10 0	May, 1861
2800	Foxdale (ld.) [L.] [2560 £25 pd., 240 £20 pd.]†		35		— .. —	Dec. 1861
5000	Frank Mills (lead), Devon	3 18 6	4¼		0 14 0.. 0 3 0	Sept. 1861
6000	Great South Tolgus [S.E.], Redruth*	0 14 6	3¼	3 3¼	7 18 6.. 0 5 0	Dec. 1861
1798	Great Wheal Fortune (tin), Breage	18 6 0	17	17½ 18	1 10 0.. 0 10 0	Jan. 1862
5908	Great Wh. Vor (tin, cp.), Helston [S.E.]	40 0 0	7		1 17 6.. 0 5 0	Mar. 1862
10240	Gunnis Lake (Clitters' Adit)	0 2 0	3⅜		0 3 0.. 0 1 6	Mar. 1862
1024	Herodsfoot (ld.), near Liskeard [S.E.]	8 10 0	37	36 37	18 0 0.. 1 15 0	Feb. 1862
1000	Hibernian Mine Company	92 6 2	27½		7 10 0.. 0 15 0	Sept. 1861
400	Lisburne (lead), Cardiganshire, Wales*	18 15 0	110		379 10 0.. 2 0 0	Dec. 1861
9000	Marke Valley (copper), Caradon	4 10 6	10⅜	10 10¼	1 12 0.. 0 6 0	Jan. 1862
1800	Minera Mining Co. [L.], (ld.), Wrexham	25 0 0	170		81 13 0.. 3 10 0	Jan. 1862
20000	Mining Co. of Ireland (cop., lead, coal)	7 0 0	19	19¼ 19½	14 7 11. 0 7 0	Dec. 1861
640	Mount Pleasant (lead), Mold	4 0 0	35		18 0 7.. 0 10 0	Mar. 1862
6000	New Birch Tor and Vitifer Cons. (tin)	1 6 6	2½		0 3 6.. 0 1 0	Sept. 1861
6000	North Downs (copper) Redruth	2 3 4	5¼	4⅞ 5⅛	0 7 6.. 0 5 0	Dec. 1861
1366	North Grambler (copper), Redruth	2 7 6	6		0 10 0.. 0 10 0	Mar. 1861
5000	Orsedd (lead), Flintshire	0 0 8	1¼		0 9 8.. 0 0 4	Jan. 1862
6400	Par Consols (cop.), St. Blazey [S.E.]	1 2 6	7	5	36 12 6.. 0 3 0	Mar. 1862
200	Parys Mines (copper), Anglesey [L.]	50 0 0	—		12 10 0.. 2 10 0	Sept. 1861
1772	Polberro (tin), St. Agnes	—	5		6 19 6.. 0 10 0	Dec. 1861
1120	Providence (tin), Uny Lelant† [S.E.]	10 6 7	43½	42 43	63 0 0.. 1 5 0	Feb. 1862
16	Rhosesmor (lead)	50 0 0	—		1250 0 0..100 0 0	Quarterly.
512	South Caradon (cop.), St. Cleer* [S.E.]	1 5 0	325	325 335	366 0 0.. 5 0 0	Jan. 1862
512	South Tolgus (cop.), Redruth, Cornwall*	8 0 0	56	52 54	104 10 0.. 1 0 0	Jan. 1862
496	S. Wh. Frances (cop.), Illogan* [S.E.]	18 18 9	100	102½ 107½	358 5 0.. 1 0 0	Jan. 1862
280	Spearne Moor (tin, copper), St. Just	31 17 9	52½		9 15 0.. 1 0 0	June, 1861
940	St. Ives Consols (tin), St. Ives†	8 0 0	26		484 10 0.. 0 10 0	Nov. 1861
9600	Tamar Con. (sil.-ld.), Beeralston [S.E.]	4 10 0	31s.	29s. 31s.	5 6 0.. 0 2 6	Jan. 1861
6000	Tincroft (cop., tin), Pool, Illogan [S.E.]	9 0 0	11	10½ 11	11 3 6.. 0 5 0	Feb. 1862
200	Trumpet Consols (tin), near Helston	57 10 0	100		55 0 0.. 2 0 0	Mar. 1862
4200	Vigra and Clogau (copper) [L. £5]	2 15 0	25		1 12 6.. 0 15 0	Jan. 1862
1024	Wendron Consols (tin), Wendron	11 13 10	13	12½ 13	8 15 0.. 1 0 0	Jan. 1861
6000	West Basset (copper), Illogan [S.E.]	1 10 0	13	12½ 13½	22 0 0.. 0 5 0	Sept. 1861
60	West Burton Gill (lead), Yorkshire	50 0 0	—		14 10 0.. 3 0 0	June, 1861
1024	West Caradon (cop.), Liskeard [S.E.]*	5 0 0	40½	40 41	100 11 3.. 1 0 0	Feb. 1862
[illegible]00	West Fowey Consols (tin and copper)	7 10 0	4		0 17 0.. 0 3 0	Jan. 1862
[illegible]00	W. Wh. Seton (cop.), Camborne [S.E.]*	47 10 0	277½	270 280	338 0 0.. 8 0 0	Feb. 1862
[illegible]12	Wheal Basset (copper), Illogan* [S.E.]	5 2 6	102½	99 101	579 10 0.. 3 0 0	Feb. 1862
256	Wheal Buller (cop.), Redruth* [S.E.]	5 0 0	67½		929 0 0.. 2 0 0	Mar. 1861
2900	Wh. Clifford Amalgamated (cp.), Gwen.	30 0 0	33	29 31	26 12 6.. 0 12 6	Feb. 1862
2000	Wheal Falmouth and Sperries	2 5 0	8		0 10 0.. 0 10 0	Feb. 1861
128	Wheal Friendship (copper), Devon	50 0 0	90		2400 10 0.. 5 0 0	Feb. 1861
512	Wheal Jane (silver-lead), Kea	3 10 0	18		12 10 0.. 1 0 0	Jan. 1862
4800	Wheal Ludcott (lead), St. Ive	2 10 8	3¼	3¼ 3½	1 12 0.. 0 4 0	Oct. 1861
896	Wh. Margaret (tin), Uny Lel. [S.E.]†	9 17 6	44½	44 46	71 5 0.. 1 5 0	Feb. 1862
1024	Wh. Mary Ann (ld.), Menheniot [S.E.]†	8 0 0	15½		55 7 6.. 0 10 0	Mar. 1862
80	Wheal Owles (tin), St. Just, Cornwall	70 0 0	300		293 3 0.. 7 10 0	Feb. 1862
396	Wheal Seton (tin, copper), Camborne	58 10 0	122	126 128	134 15 0.. 1 10 0	Feb. 1862
1040	Wh. Trelawny (sil.-ld.), Liskeard [S.E.]	5 17 0	18½	17¼ 17¾	44 10 0.. 0 15 0	Feb. 1862
5000	Wicklow (copper) [L.], Wicklow	5 0 0	51	50½ 51	43 17 6.. 2 0 0	Oct. 1861

[* Dividends paid every two months. † Dividends paid every three months.]

MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid
700	Aberdovey (silver-lead), Merioneth	1 10 0	30		0 10 0.. 0 10 0	Mar. 1859
5120	Alfred Consols (cop.), Phillack [S.E.]	3 3 6	¼		20 3 0.. 0 2 6	April, 1859
2048	Carnyorth (tin), St. Just	3 15 0	1¾		0 19 6.. 0 2 0	Sept. 1860
6000	Charlotte United, Perranuthnoe	2 8 10	1	¾ ⅞	0 18 0.. 0 1 6	Sept. 1859
256	Condurrow (cop., tin), Camborne	20 0 0	60	55 57	85 0 0.. 2 0 0	June, 1857
4076	Devon and Cornwall (copper)	5 16 3	6		0 10 0.. 0 2 6	Feb. 1859
672	Ding Dong (tin), Gulval	39 2 6	15		16 7 6.. 1 10 0	Mar. 1857
2800	Drake Walls (tin, copper), Calstock	2 1 0	21s.	23s. 25s.	0 13 6.. 0 2 0	Sept. 1857
2048	East Falmouth (sil.-ld.), Kenwyn, Kea	3 5 0	¼		0 7 6.. 0 2 6	Jan. 1858
128	East Pool (tin, copper), Pool, Illogan	24 5 0	200		305 0 0.. 2 10 0	Aug. 1858
2048	East Wheal Lovell (tin), Wendron	2 13 6	—		0 5 0.. 0 5 0	July, 1859
4940	Fowey Consols (copper), Tywardreath	4 0 0	5		41 9 3.. 0 2 6	June, 1860
486	Grambler and St. Aubyn (cop.) [S.E.]	49 10 0	15	15 17½	23 0 0.. 1 0 0	July, 1860
119	Great Work (tin), Germoe	100 0 0	110		221 10 0.. 7 10 0	Feb. 1857
6000	Hingston Down Con. (cop.), Cals. [S.E.]	4 19 0	2¾	2½ 2¾	2 16 0.. 0 2 6	Nov. 1856
5300	Kelly Bray (lead, copper), Callington	4 13 0	14s.	10s. 11s.	0 6 0.. 0 2 0	Feb. 1860
20	Laxey Mining Company, Isle of Man	100 0 0	1200		1420 0 0..50 0 0	June, 1857
160	Levant (copper, tin), St. Just	2 10 0	95		1091 0 0.. 5 0 0	May, 1860
5000	Mendip Hills (lead) [L.], Somerset	3 15 0	1¾		2 1 0.. 0 2 6	May, 1860
470	Newtownards Mining Co., Co. Down	50 0 0	35		56 0 0.. 1 0 0	Sept. 1858
6000	North Great Work, Breage	1 3 0	1¼		0 2 0.. 0 2 0	May, 1860
512	Rosewarne United (cop., tin), Gwinear	19 6 4	32	25 27½	33 10 0.. 1 0 0	Sept. 1860
12000	Sortridge Con. (cop.), Whitchurch [S.E.]	0 16 0	11s.	9s. 11s.	0 10 0.. 0 2 6	July, 1857
128	South Crinnis (copper), St. Austell	19 0 0	285		60 0 0..20 0 0	June, 1855
20000	St. Day United (tin and cop.), Redruth	2 7 0	⅝	⅝	0 3 6.. 0 1 0	Feb. 1858
6000	Tolvadden (copper), Marazion	0 6 0	3¾	3 3½	0 13 6.. 0 3 0	Mar. 1860
572	Trelyon Consols (tin), St. Ives	11 10 0	18		7 0 0.. 0 10 0	Sept. 1860
20000	Vale of Towy (lead), Carmarthen [S.E.]	0 13 6	¼		0 5 9.. 0 1 0	July, 1858
256	West Damsel (copper), Gwennap	38 10 0	60		45 0 0.. 1 0 0	May, 1860
1024	West Providence (tin), St. Erth	16 15 0	3¾		23 1 9.. 0 10 0	April, 1857
4096	Wheal Edward (cop.), Calstock [S.E.]	7 7 6	1¾		0 5 0.. 0 5 0	Mar. 1858
1024	Wheal Grylls (tin), Perranuthnoe	2 4 0	15	17 18	1 12 0.. 0 7 6	Nov. 1859
1024	Wheal Kitty (tin), Uny Lelant [S.E.]	1 7 2	12	13½ 14	8 0 0.. 0 10 0	Sept. 1860
5000	Wheal Kitty (tin), St. Agnes	4 16 6	¾		0 18 6.. 0 2 0	July, 1860
1024	Wheal Margery (tin, copper)	16 13 0	8		0 10 0.. 0 10 0	May, 1860
100	Wheal Mary (tin), Lelant	36 2 6	440		280 5 0.. 7 0 0	June, 1860
1022	Wheal Tremayne (tin, cop.), Gwinear	13 2 6	5		10 2 6.. 0 7 6	Jan. 1854

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid
2464	Burra Burra (cop.), South Australia	5 0 0	116		280 0 0.. 5 0 0	Dec. 1861
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	33	32 34	98 12 0.. 1 0 0	Jan. 1862
10000	Copiapo Mining Company, Chili [S.E.]	16 0 0	7¼		6 8 0.. 0 5 0	Jan. 1861
15000	East Indian Coal, Calcutta [L.]	10 0 0	10		7½ per cent.	Yearly.
70000	English and Australian [S.E.]	5 0 0	3¼		1 7 6.. 0 2 6	Feb. 1862
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	20 0 0	24		18 5 0.. 1 0 0	June, 1861
68000	Kapunda Mining Co., Australia [S.E.]	1 0 0	2¼	2 2⅛	0 9 0.. 0 1 0	Mar. 1862
15000	Linares (ld.), Pozo Ancho, Spain [S.E.]	3 0 0	8¼		8 6 2.. 0 3 4	July, 1861
10000	Lusitanian (of Portugal) [S.E.]	2 0 0	2	2	0 19 9.. 0 1 0	Feb. 1862
108815	Mariquita and New Granada [S.E.]	1 0 0	⅞		0 9 6.. 0 1 6	July, 1859
100000	Port Phillip (gold), Clunes [S.E.]	1 0 0	1¼	⅞ 1⅛	0 5 6.. 0 1 6	Jan. 1862
11000	St. John del Rey [L.], Brazil [S.E.]	15 0 0	62	58½ 59½	46 5 0.. 3 0 0	Dec. 1861
20000	West Canada Mining Company [L.]	1 0 0	1¼		0 2 0.. 0 2 0	June, 1860

FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Dividends Per Share.	Last Paid
10000	Alten and Quænangen Uni. (cop.) [L. £5]	4 10 0	3		4 5 0.. 0 15 0	Nov. 1853
10000	Gt. Barrier Land, Min., &c., N. Ze. [L. £5]	4 10 0	3¼		15 per cent.	May, 1859
10000	Pontgibaud (sil.-lead), France [S.E.]	20 0 0	4		1 0 0.. 1 0 0	June, 1855
43174	Unit. Mexican (sil.), Mexico [S.E.] Av.	23 5 0	8¾	7½ 8	1 16 6.. 0 4 0	Feb. 1853

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
20000	Australian (copper), South Australia [S.E.]	7 7 6	¾	⅝ 1⅛	Sept. 1858
75000	Bon Accord, South Australia (copper) [L. £1] [S.E.]	0 17 6	⅛		Dec. 1860
25000	Capula (silver), Mexico [L. £2] [S.E.]	0 10 0	¾		Jan. 1862
6000	Central American (silver) [L.]	5 0 0	12		Feb. 1859
17000	Central Italian (copper) [7000 £2 paid]	0 6 0	—		Jan. 1859
60000	Clarendon Consols (copper), Jamaica [S.E.]	0 17 6	⅜		Jan. 1861
10000	Copiapo Smelting [L.], Chili	10 0 0	8½		Fully paid.
75000	Dun Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	1¼	1 1¼	Fully paid.
25000	East del Rey, Brazil [L. £3]	1 0 0	1¾	1½ 1¾	Sept. 1861
30000	East Kongsberg Native Silver Mining Co. of Norway [L. £5]	1 0 0	¾		April, 1861
15000	Elbe Colliery Company [L. £1]	0 5 0	⅜		Dec. 1861
30000	Ellerslie and Bardowie, Jamaica	0 18 0	1¼		July, 1859
8000	English and Canadian Mining Company [L.]	5 0 0	—		Fully paid.
25000	Fortuna (lead), Spain [L.] [S.E.]	2 0 0	2¾	3 3¼	Fully paid.
80000	Great Northern (copper), South Australia [L. £2] [S.E.]	1 5 0	1⅛	1⅛ 1¼	Mar. 1862
24000	Hindostan (copper), Bengal [L. £5]	1 0 0	¾		Nov. 1861
4000	Hope Silver-Lead and Copper Mining Co. [L.], Jamaica	25 0 0	—		Fully paid.
50000	Imperial Thessalian (lead, &c.), Thessaly [L. £2]	0 10 0	¼		June, 1860
10000	Karbitz Colliery Company [L. £1]	0 10 0	—		Dec. 1861
100000	Montes Aureos (gold), Brazil [L. £2]	1 0 0	—		Jan. 1862
30000	Lagunazo (sulphur, copper), Portugal [L. £1]	0 17 6	⅛	⅝	Mar. 1862
60000	New Granada (gold), South America [S.E.]	1 0 0	¾		Fully paid.
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	1		Nov. 1858
60000	North Rhine Copper of South Australia [L. £1] [S.E.]	0 15 0	⅝	⅜ ⅝	Nov. 1861
15000	Pachuca Silver Mining Company, Mexico [L. £1]	0 10 0	—		April, 1861
60000	Santa Barbara (gold), Brazil [L. £1]	0 10 0	¾	¾ ⅞	Nov. 1861
80000	Scottish Australian Mining Company [L. £1]	0 10 0	2⅛	2¼ 2⅜	Nov. 1858
15000	South Europe Mining Company, Spain [L. £5]	3 0 0	—		May, 1860
50000	St. John's United (copper, lead), Newfoundland [L.]	1 0 0	⅝		Fully paid.
45000	Victor Emanuel, Italy [L.] [20,000 Pref. Shares, 5s. pd., 25,000 £1 pd.]		1⅛		
1000	Western Africa Malachite (copper) [L.]	110 0 0	—		Oct. 1859
12000	Wheal Ellen, South Australia [L. £5]	4 0 0	4¼		July, 1861
35425	Wheal Jamaica (copper)	1 0 0	18s.		Fully paid.
80000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	⅝	¼ ⅝	Fully paid.

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4825	Abbey Consols (ld.) Cardigan.	2 7 0	1		Nov. 1860
1000	Allt-y-Crib (lead) [L. £5]	2 18 6	2		Oct. 1861
10000	Angarrack (copper), Phillack.	1 1 6	1⅛		June, 1859
1000	Ashburton United (cop., tin)	14 0 0	14¾		Oct. 1861
1624	Balleswidden (tin), St. Just	14 8 7	12		Mar. 1862
10000	Bampfylde (copper), Devon	0 15 0	4		Aug. 1860
4000	Bedford Consols (copper)	2 1 6	3s.		Jan. 1862
2000	Berehaven (copper), Ireland	1 0 0	1¼		
6000	Bickerton (copper) [L.]	1 0 0	3¼		
7500	Bickleigh Vale Phœnix [L.]	2 0 0	2¼		Fully paid.
200	Billins (lead) [L. £30]	20 0 0	18	16 18	Feb. 1861
10000	Borlase Con. (tin), St. Just [L.]	1 0 0	—		Fully paid.
1248	Boscaswell (tin), Penzance	6 5 0	8		Dec. 1860
2280	Boscundle (tin, cp.), St. Austell	6 15 0	4		Sept. 1860
160	Bosorne & Bollowall, St. Just	6 5 0	10		Dec. 1860
5000	Bottle Hill (tin), Plympton	1 0 0	⅜		
12000	Brea Con. (tin), St. Ives [L. 30s.]	1 4 0	1¼		Mar. 1862
1200	Brightside & Froggatt Grove	3 0 0	3¼		
5000	Bronfloyd (ld.), Cardigan. [L.]	2 6 0	3¼	3⅜	Feb. 1862
112	Bron-Haulog (ld.), Denbighsh.	20 0 0	20		No call.
5120	Brynambor (ld.), Cardi. [L. £5]	2 0 0	2¾	2¾ 3	May, 1861
200	Brynford Hall (lead), Flint.	21 10 0	6		Jan. 1862
500	Bryn Gwiog (lead), Flint	5 0 0	27	26 28	Oct. 1861
2000	Bryntail, Llanidloes, Montgo.	5 7 0	4		Aug. 1861
6380	Buller and Basset Unit. (cop.)	3 9 6	1⅜		Jan. 1862
4096	Calstock Consols (copper)	5 10 0	¼		Dec. 1860
915	Calvadnack, Wendron	18 5 0	7¼		Mar. 1861
1000	Camborne Consols (copper)	17 0 0	8		Feb. 1862
4600	Camborne Vean & Wh. Francis	8 4 4	2	1⅜ 1⅝	Jan. 1862
914	Caradon Cons. (cop.), St. Cleer	24 7 0	12½		Mar. 1862
1000	Cardigan Cons. (ld.) [L. £10]	8 0 0	9		Oct. 1861
916	Cargoll (silver-lead), Newlyn	15 5 7	15		Sept. 1860
2580	Carmarthen United	5 0 0	4		Fully paid.
6000	Carn Camborne (copper)	0 7 0	14s.	12s. 14s.	May, 1861
4370	Carnewas (ld., cop.), Mawgan	1 3 0	¾		June, 1861
3000	Carn Vivian (tin, cop., lead)	2 1 6	2½		Nov. 1861
7000	Carrack Dews	2 16 0	1		April, 1861
1056	Carvannall (cop.), Gwennap	21 11 7	3		Dec. 1860
20000	Carysfort (cop., ld.) [L. £2¼]	0 10 0	9s. 6d.	11s. 12s.	Mar. 1859
10000	Castleward, Ireland [L. £1]	0 15 0	15s6d.		Mar. 1861
2500	Cefn Cilcen (lead), Flintshire	1 7 0	1		Feb. 1862
1500	Central Minera (lead) [L. £5]	0 18 0	5½		Mar. 1862
4000	Clara Unit., Ponterwyd [L. £3]	2 7 0	1⅝	1⅝	Jan. 1862
984	Clijah & Wentworth (tin, cp.)	29 5 6	2		May, 1861
6000	Clinton and Edgecombe United	1 0 0	1⅛		Oct. 1860
3135	Coed Mawr Pool (lead) [L.]	4 9 0	4		Mar. 1862
2000	Collacombe (cop.), Lamerton	5 5 0	12		
50000	Connorree (cop., sulph.) [L.]	1 0 0	31s.	32s.	Fully paid.
5000	Cornubia (tin), Roche	1 5 0	23s.		Dec. 1861
10000	Craigton (ld.) [L. £1], Kirkcud.	0 10 0	¾		June, 1859
876	Crane (copper), Camborne	12 0 0	9		Feb. 1862
30000	Craven Moor (ld.), Yorkshire	0 10 0	4s.		No call.
12000	Crelake (cop.), Tavistock	—	2		No call.
8000	Crookhaven (cop.) [L. £2¼]	1 0 0	6s. 6d.		Mar. 1861
2000	Crowlwm (lead), Llanidloes	1 10 0	⅞		No call.
6000	Crowndale (cop.), Tavistock	0 11 0	3		Nov. 1858
6000	Cuddra (cop., tin), St. Austell	2 19 0	2¾		Feb. 1862
1800	Cwmbrane, Carmar. [L. £3]	2 0 0	2	2	Feb. 1862
21000	Dale, North Staffordshire [L.]	1 0 0	12s.	10s. 12s.	Fully paid.
2000	Deep Level, Minera [L. £5]	3 5 0	—		Feb. 1862
4817	Devon and Courtenay (cop.)	1 11 0	11s.		Oct. 1861
12000	Dev. New Copper Co. [L. £2]	—	—		
12000	Devon Union (copper) [L. £1]	0 17 6	⅞		Feb. 1862
4566	Devon Wheal Buller (copper)	4 0 0	¾		Feb. 1862
1000	Durio (tin), Lelant	7 2 0	3⅛		Mar. 1862
2000	Dolcoath United [L. £5]	1 0 0	—		June, 1860
3000	Dulta (tin) [L. £1]	—	1		
244	Eaglebrook (lead.), Cardigan.	77 10 0	16		Oct. 1861
4096	East Alfred Consols (copper)	4 2 6	1		Mar. 1862
3000	E. Beam (tin), St. Aus. [L. £2]	0 15 0	2	2	Nov. 1861
6000	E. Budnick and Mount (cop.)	0 10 0	7s.		Jan. 1861
6000	East Carn Brea (cop.) Redruth	3 11 0	12⅝	13⅛ 13⅜	Oct. 1861
6400	East Crinnis and South Par.	2 11 6	2		Sept. 1861
6000	East Damsel (cop.), Gwennap	1 11 0	1¾		Mar. 1862
4000	East Devon Gt. Consols (cop.)	0 16 6	2		Dec. 1861
4000	East Fowey (cop.) [L. 50s.]	1 9 0	1½		Dec. 1861
6000	E. Grenville (cop.), Camborne	1 2 0	34s.	30s. 32s.	Feb. 1862
4000	E. Gunnis Lake & S. Bedf. (cp.)	6 10 6	1		Oct. 1861
12000	East Mona (cop., &c.) [L. £1]	0 5 0	—		May, 1861
8000	E. Polberro, St. Agnes [L.]	0 10 0	⅛		May, 1861
4096	E. Providence (tin), Uny Lel.	2 5 10	2¼		Jan. 1862
6000	E. Releath (tin, cop.), Wendron	0 1 0	1		Aug. 1860
5000	E. Rosewarne (cp., tin), Gwin.	2 13 0	1¼	1¼	Jan. 1862
5610	East Seton (cop.), Camborne	0 6 0	½	⅜ ½	Feb. 1862
256	East Tolgus (copper), Redruth	63 0 0	30		Oct. 1861
1000	E. Trefusis (cop.), Gwennap	7 14 7	1		Sept. 1861
1024	E. Treskerby (cop.), Redruth	4 5 0	5		Nov. 1861
1190	E. Wheal Agar (cop.), St. Cleer	8 7 0	2¾		July, 1861
6000	E. Wh. Ellen (sil.-ld.), St. Ive	0 1 0	⅜		July, 1860
4000	E. Wh. Russell, Tavis. [S.E.]	7 10 0	3⅛	2¾ 3	Feb. 1862
5700	Exmouth (sil.-ld.), Christow	5 19 0	1¼		Nov. 1861
6000	Fowey and Par Uni., St. Blazey	0 10 0	1⅛		Nov. 1860
5000	Furdon (cp.), Okeham. [L. 30s.]	1 7 6	2½		Oct. 1861
6000	Furze Hill Wood Cons., Buckl.	0 7 0	2⅛		Dec. 1861
114	Garden (tin), Morvah	35 0 0	20		Feb. 1862
1000	Garreg (lead), Flint	4 13 0	⅛		Jan. 1862
4000	Gawton (copper), Tavistock	1 14 0	9s.		Feb. 1862
1024	Gelliffowiler (ld.), Holywell	0 2 6	5s. 6d.		June 1861
6000	Gen. Min. Co. for Irel. (cop.)	4 0 0	5		
30000	Glasgow Caradon Cons. [L.]	1 0 0	3¾		Fully paid.
4892	Goginan (silv.-ld.) [1900 £12½, 2992 £1]		2		July, 1860
6144	Gonamena (copper), St. Cleer.	2 17 6	1⅛		Feb. 1862
2000	Goonzion (copper), St. Neot	0 2 6	4s.		Feb. 1861
5000	Great Brigan (copper)	3 7 0	3		June, 1861
4096	Great Caradon (cop.), St. Ive.	1 14 0	1	1	Feb. 1862
6000	Gt. Crinnis (cop.), St. Austell	2 19 0	1¼		Feb. 1862
6000	Great North Downs (copper)	1 0 0	1¼		Dec. 1861
10104	Great Onslow Cons., Camelfd.	3 10 9	¾		Dec. 1860
6000	Gt. Retallack (sil.-ld., blende)	1 11 0	12s.		Feb. 1862
47000	Gt. Tregune Con. [40,000 £¼, 7000 £¼ pd.]		—		
10000	Great Treveddoe (copper)	0 14 0	11s.		Aug. 1861
6000	Gt. Tywarnhaile (cp.), [L. £5]	3 0 0	3		Jan. 1861
5120	Great Wheal Alfred [S.E.]	14 1 2	¼		July, 1861
3730	Great Wheal Baddern (tin)	5 17 0	¾		Feb. 1862
6000	Gt. Wh. Busy (cop., tin), Ken.	13 0 0	6½		Mar. 1861
12500	Great Wh. Martha (cop.) [L.]	1 0 0	19s.		Fully paid.
4910	Gurlyn (cop., tin), St. Erth	1 18 11	⅜	¼ ⅜	Feb. 1862
8634	Gwydyr Park Con., Llanrwst	0 18 6	9s.		Dec. 1861
10000	Hafod (ld.), Cardigan [L. £5]	1 0 0	—		Jan. 1862
6400	Harwood (ld.), Durham [L. £1]	0 3 6	⅜		July, 1861
7219	Hawkmoor (tin, cop.) Calstock	2 19 6	¼		Oct. 1861
200	Herward Uni. (ld.), Flint.	42 0 0	10		Jan. 1862
10000	Holmbush [5000 £5 2s. pd., 5000 5s. pd.]		—		Sept. 1860
40	Imperial Silver-Lead, Dolgelly	65 0 0	80		Jan. 1862
6000	Keswick (lead), Portinscale	5 5 6	1⅛	¾ 1	Mar. 1862
6000	Lady Bertha (cop.) [S.E.]	1 14 6	11s.	¾ ⅞	Jan. 1862
3000	Lady Eliza (ld.), Carm. [L. £3]	2 8 0	¾		June, 1861
1019	Leeds & St. Aubyn (tin, cop.)	16 4 4	4		Feb. 1862
963	Lelant Cons. (tin), Uny Lelant	32 10 0	2½		Mar. 1861
1000	Llanfair (silver-lead) [L.]	6 0 0	6		Fully paid.
2000	Llywernog (ld.), Card. [L. £3]	1 4 0	1⅜		Jan. 1862
500	Long Rake (lead), Flint	12 0 0	14		Feb. 1862
2000	Lower Park Denbighshire [L.]	4 0 0	18s.		
4480	Merllyn (lead), Flint	3 13 6	⅛	¾ 1	Jan. 1862
22000	Merryfield (lead) [L.]	0 12 0	9s.		May, 1860
3475	Michell (lead), Flint	0 2 6	9s.		Nov. 1861
16000	Mold (lead), Flints. [L. £1]	0 17 0	⅞		Jan. 1860
5000	Molland (cop.), S. Moulton	2 8 0	2s.		July, 1861
1024	Nangiles (tin, copper), Kea	5 0 0	6		Dec. 1861
5000	Nanteos and Penrhiw [L. £4]	3 12 0	—		Jan. 1862
2400	Nant-y-Iago (ld.), Merioneth	3 0 0	2½		Mar. 1861
250	Nanty Mines (ld.), Montgom.	20 0 0	—		Fully paid.
6400	Nether Heath (lead), Dufton	0 15 6	⅛		April, 1860
6400	N. Crowhill (ld.), St. Stephen	2 2 6	1⅛		Jan. 1862
4540	New E. Wh. Russell, Tavistock	0 4 0	½		Aug. 1861
1000	New Godolphin	0 10 0	—		Jan. 1862
6000	New Treleigh Cons., Redruth	1 14 0	1		Feb. 1862
2000	New Wheal Clifford (copper)	0 6 0	¼		Mar. 1861
1024	New Wheal Hender, Crowan	2 10 0	3		June, 1861
400	New Wh. Seton (cop.), Camb.	15 0 0	67½	55 60	Dec. 1861
2300	New Wh. Vor & E. Wh. Metal	9 0 0	—		July, 1861
2500	N. Wh. Vaddon (tin), Marazion	1 2 6	1¼		Nov. 1861
6000	Nidderdale (ld.), Yorks. [L. £1]	0 15 0	⅞		Jan. 1861
90	N. Budnick (tin, ld.), Perranz.	1 10 0	40		No call.
4500	No. Budnick and West Mount	0 5 0	⅜		
1024	North Buller (cop.), Redruth	21 17 6	3⅛		Feb. 1862
6000	Nor. Clifford (cop.), Gwennap	0 5 0	⅝		Nov. 1860
4000	North Cornwall (Endellion)	—	2		No call.
20000	North Devon (sil.-ld.) [L. £1]	0 8 0	11s.		Oct. 1861
5000	N. Dolcoath (cop.), Camborne	2 7 6	¾		Feb. 1862
1000	North Fortescue (copper)	1 14 0	2		Oct. 1861
2500	North Frances, (cop.) [S.E.]	13 6 0	2¾		Feb. 1862
6000	N. Hafod (sil.-ld.), Car. [L. £2]	0 15 0	—		Feb. 1862
8000	N. Hallenbeagle (tin, cp.) [L.]	0 15 0	¾		Dec. 1861
2000	North Jane (tin, silver-lead)	4 0 0	2½		Dec. 1861
6000	North Kit Hill (tin, copper)	0 2 6	⅜		Sept. 1861
6000	North Laxey (lead) Isle of Man	—	1¼		Fully paid.
2000	N. Levant (tin, cop.), St. Just	6 16 6	6		Aug. 1861
10000	North Minera (lead) [L.]	1 0 0	19s.	18s. 19s.	April, 1860
16000	North Porthilly (silv.-lead)	—	⅛		Sept. 1861

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
4096	North Rosewarne, Gwinear	0 4 6	4s. 6d.		
700	N. Roskear (cop.), Camborne	18 0 0	24	22½ 23½	
5000	N. Treleather (sil., cp.), Padstow	1 0 0	1¼		
848	N. Treskerby (cop.), St. Agnes	10 3 9	21	21 22	
6000	N. Wh. Basset (cop., tin) [S.E.]	2 3 0	3⅝	3¼ 3¾	
1024	North Wheal Busy (cop., &c.)	8 17 7	5		
5610	North Wheal Crofty [S.E.]	1 19 0	2	36s. 38s.	
6144	N. Wh. Robert, Samp. Spiney	2 12 11	1	¾ 1	
4108	North Wheal Trelawny (lead)	3 4 0	¼		
5900	North Wheal Vor (tin), Breage	3 0 0	—		
4000	N. Wrey (ld.), St. Ive [L. £2]	0 17 6	26s.		
4096	Okel Tor (lead), Calstock	5 6 6	2⅛		
600	Old Tolgus United (cop.) Redr.	47 18 0	5	7 8	
800	Pant-y-Buarth (ld.) [L. £10]	6 0 0	20		
8465	Pedn-an-drea United (tin)	3 7 6	¾		
12000	Pencraig United (ld.) [L. £1]	0 7 6	—		
5000	Pendeen Consols, St. Just	3 15 0	4½	4 4½	
1000	Pengenna (ld., sil.), St. Kew	4 10 0	6¾		
5000	Penhalls (tin), St. Ann's	1 6 0	5⅛		
200	Pentre Lygan (lead) [L. £30]	20 0 0	21		
4000	Polgear Mines (tin), Wendron	1 7 0	½		
6000	Polhigey Moor (tin), Wendron	1 2 6	1⅛		
944	Praed Consols (tin), Lelant	4 4 5	2½		
6400	Prideaux Wood (tin, cop.)	3 12 0	16s.		
512	Polbreen (tin), St. Agnes	8 0 0	8		
6000	Prosper Uni. (tin, cp.), St. Hilary	4 3 0	2⅝	3 3¼	
11789	Redmoor (cop., tin), Callington	0 9 0	¼	4s. 5s.	
6000	Releath (tin, cop.), Crowan	1 0 0	2¼		
2500	Rhoswydol and Bacheiddon	12 5 0	7⅛		
3000	Rhyscog (silver-lead) [L. £5]	1 0 0	1		
20000	Ribden [L.] [15000 £1, 5000 £½ pd.]		—		
10000	River Tamar Copper [L.]	1 0 0	1		
6000	Rosewall Hill & Ransom Utd.	2 16 0	4⅜	3⅞ 4⅛	
4096	Rosewarne Consols (copper)	3 7 6	2⅛		
5000	Round Hill (cop., ld.), Salop	2 5 6	⅜		
2000	Scorrier Con. (tin, cp.), St. Agnes	3 0 0	1⅝		
10000	Sigford Con. (cop., tin) [L. £1]	0 15 0	1⅜		
100	Silver Rake (lead) [L. £20]	6 0 0	9		
15000	Silv. Vein, St. Winnow [L. £1]	0 7 6	2⅛		
6000	Smith's Wood (tin, cp.) [L. £2]	1 8 0	3⅛		
512	South Basset (cop.), Gwennap	13 5 8	12	11 12	
100	South Bryn Gwiog (lead)	5 0 0	24		
6400	So. Buller & W. Penstruthal.	0 12 0	1⅛		
4096	S. Caradon Wh. Hooper (cop.)	2 16 6	16s.	20s. 21s.	
6000	So. Carn Brea (cop.) [S.E.]	5 15 6	3⅛		
6138	S. Condurrow (tin, cp.), Camb.	2 4 0	10s.		
2283	Sou. Crenver (cop.), Crowan.	10 7 0	5⅛		
6000	South Darren (ld.) [L. £3¼]	2 10 0	1¼		
65000	S. Dev. Iron & Gen. Min. [L. £1] [S.E.]		⅞		
1024	S. Ding Dong, Gulval (tin)	0 10 0	¾		
6000	S. Dolcoath & Carnarthen Con.	2 5 0	4		
6000	South Gernick (tin), Crowan.	0 2 6	⅜		
1000	South Gorland	6 10 0	5		
20	South Levant (tin), St. Just	50 0 0	50		
4000	South Minera [L. £5¼]	2 2 0	4		
5537	So. Phœnix (cop.) Linkin.	4 10 0	1¾		
1024	South Tresavean, Gwennap	3 18 9	1⅛		
4096	S. Wh. Betsy, Mary Tavy, Dv.	1 7 0	1		
1105	So. Wh. Crofty (cop.), Illogan	3 8 10	4		
1024	S. Wh. Ellen (cp.), St. Agnes	9 18 2	1		
1000	South Wh. Kitty (tin), Lelant	1 10 0	1¾		
1024	S. Wh. Lovell (tin), Wendron	1 4 6	2½		
6000	S. Wh. Margaret (tin), Ludgvan	0 3 0	7s.		
400	So. Wh. Seton (cop.), Camborne	27 13 0	6		
794	Spearne Cons. (tin), St. Just.	6 12 0	3¼		
970	St. Aubyn and Grylls (cp., tin)	7 14 6	2½		
5208	St. Austell Consols (tin, &c.)	3 16 0	1¼		
1024	St. Ives Wheal Allen (tin)	7 13 9	6		
6000	St. Just (tin & cop.) [L. 2½]	0 10 0	⅞	¾ ⅞	
640	Stamp Office (lead), Mold	1 0 0	1⅛		
1000	Stencoose and Mawla (tin, cp.)	3 0 0	2		
920	Stray Park (cop., tin) [S.E.]	28 9 0	32	30 31	
5000	Tavy Con. (cop.), near Tavis.	5 12 6	1⅛		
3000	Tees Side (ld.), Cumb. [L. £1]	0 13 0	4s.		
6000	Tolcarne (cop.), Camborne	1 2 6	3	2⅞ 3	
2000	Treffry Consols	0 5 0	—		
2000	Trefulack Uni. (tin), St. Enoder	3 5 0	4¼		
5000	Treloweth (copper), St. Erth	6 6 8	21s.		
1024	Trencrom (tin), Uny Lelant	10 15 0	3½	3½ 4	
5000	Tresellyn and Scaddick Cons.	1 5 6	—		
8000	Tretoil (copper, tin)	2 7 6	1⅛		
5600	Trevenen and Tremenheere	6 0 6	2½		
4096	Treweatha (sil.-ld.), Menhen.	4 16 6	½		
2048	Treworlis (tin), Wendron	3 6 4	2		
4000	Trumpet Unit. (tin), Wendron	1 0 0	8s.		
3000	Tyne Head (ld., cop.) [L. £1]	0 12 0	¾		
800	Tynewydd (sil.-ld.), Cardigan	0 5 0	—		
1024	Tyringham Consols (tin)	2 0 0	2¾		
5120	United Mines (cp., &c.), Tav.	4 16 6	1⅛		
1000	Waenlas (ld.), Denbigh. [L. £10]	8 0 0	5		
3000	Watermouth Gt. Sil.-Lead [L.]	5 0 0	6		
4000	Wentnor [L. £2¼]	1 19 0	1⅞		
3000	West Alfred (copper) [L. £3]	1 0 0	1		
20000	West Beam [L. £1]	0 5 0	¼		
100	W. Bryn Gwiog (ld.) [L. £20]	9 0 0	12		
1218	W. Condurrow (tin, cop.), Cam.	7 0 0	5	4½ 5	
16	West Denbigh (ld.), Denbigh.	35 0 0	100		
30000	W. Devon Con. (cop.), [L. £1]	0 12 6	¼		
4620	W. Great Work (tin), Germoe	0 10 0	11s.		
25000	West Par Con. (cp.) St. Blazey	1 9 0	¼		
32	West Penstruthal	250 0 0	400		
6000	W. Polmear (tin, cp.), St. Austell	0 10 0	6s.	4s. 5s.	
1600	W. Rose Down (cop.), Caradon	4 0 0	16	14 15	
256	West Sharp Tor (cp.) Rillaton.	137 0 0	35		
6000	W. Silver Bank (sil.-ld.) [L. £3]	1 0 0	—		
4096	West South Caradon (copper)	1 16 6	1		
1056	West Stray Park (cop.), Camb.	7 15 0	4½		
5000	West Tolcarne (cop.), Crowan	1 15 0	⅜		
512	West Tolgus (cop.), Redruth.	22 0 0	25	27½ 30	
5120	West Tolvadden	1 6 6	1		
1827	West Trevelyan (tin, copper)	9 14 0	2½	1½ 2	
4000	West Wendron (tin), Wendron	1 0 6	3s.		
512	West Wheal Frances, Illogan	73 5 0	9½	10 12	
10000	West Wheal Jane (tin, &c.)	2 18 6	¾		
1024	West Wheal Lovell, Wendron.	2 13 8	1		
3000	W. Wh. Margaret (tin), Uny Lel.	2 18 6	—		
6000	Wheal Agar (copper), Illogan	3 6 0	2⅛		
2048	Wh. Agnes (sil.-ld.), St. Kew	—	2		
1024	Wh. Anna (ld., blende), Perranz.	0 13 6	1¼		
5000	Wheal Annie (cop.), Gwinear	0 15 0	¾		
5990	Wh. Arthur (cop.), Calstock.	3 12 0	16s.	15s. 16s.	
1000	Wheal Basset and Grylls (tin)	7 0 0	12		
18000	Wh. Concord (sil.-ld., cp.) [L. £1]	0 5 0	—		
6000	Wheal Crebor (cop.), Tavistock	0 18 0	11s.		
5120	Wheal Cupid (cop.), Redruth.	3 19 0	6s.	7s. 9s.	
512	Wh. Damsel (cp., tin), Gwennap	26 13 6	15	15 16	
4000	Wh. Emma (cp) Buckfastleigh	2 15 0	4		
4096	Wheal Emma (tin), Breage	0 10 0	¾		
5844	Wh. Grenville (copper) [S.E.]	7 12 0	54s.	54s. 56s.	
5120	Wheal Harriett, Camborne	4 4 6	24s.	21s.	
6000	Wh. Harris (ld., cop.), Lifton	0 10 6	1		
1024	Wheal Hearle (tin), St. Just.	9 13 8	20		
2048	Wheal Hope (sil.-ld.), Perran	0 15 6	⅝		
10000	Wh. Lopes (tin, zinc) [L. £1]	0 10 0	—		
6000	Wheal Louisa (cop.), Redruth.	0 10 0	1¾		
5640	Wh. Mary Emma (tin) Lydford	0 10 3	—		
6000	Wh. Moyle (cop.), Gwennap.	2 7 0	33s.	1½ 1¾	
6000	Wh. Norris (tin, cp.), St. Cleer	1 18 1	1¾		
256	Wheal Polmear, St. Austell	14 15 0	220		
2315	Wh. Pollard (cop.), St. Neot's	2 10 0	½		
1000	Wh. Prosper (cp., tin), Breage	9 0 0	5	4	
1879	Wheal Prospidnick (tin)	1 19 0	5⅛		
240	Wh. Reeth (tin), Uny Lelant	88 10 0	30		
1024	Wh. Sicily (sil.-ld.), Broadoak	3 17 6	3		
4096	Wheal Sidney (tin), Plympton	3 11 1	2		
2048	Wh. Sithney & Carnmeal Uni.	6 0 0	2½		
1024	Wheal St. Andrew (copper)	5 0 0	5		
512	Wh. Trannack (tin), Sithney	2 10 0	—		
512	Wh. Trefusis (cop.) Gwennap.	26 5 0	3		
6000	Wheal Union (cop.), Redruth	3 4 0	2½	2⅜ 2⅝	
6000	Wh. Unity (cop., tin), Gwinear	11 12 0	17s.	14s. 16s.	
4096	Wh. Uny (tin, cop.), Redruth	8 8 6	5¼	4⅞ 5⅛	
1024	Wh. Vyvyan (cop.), Constantine	2 0 0	—		
6000	Wheal Welcome (tin, copper)	1 0 0	4½		
6400	Whitford (lead), Holywell	10 16 6	—		
5000	Willow Bank (lead) [L. £2]	1 14 0	4s.		
1024	Worvas Downs (tin), Lelant	4 15 0	5		
3097	Yarner (copper), Devon	2 4 6	2		

SLATE QUARRIES.

Shares.	Mines.	Paid.	Last Pr.
8800	British Slate [7000 £1, 1800 £10] [L.]		1¼
10000	Criccieth, Carnarvon [L. £3]	1 10 0	1⅛
20000	Festiniog Slate Quarry [L. £5]	4 10 0	—
6000	Glan-y-Pwll, Merion. [L. £5]	2 0 0	2¼
10000	Great Moelwyn Slate [L. £5]	2 0 0	1⅛
600	Llangollen Slate and Slab	—	—
10000	Lower Taldrws [L. £2½]	1 10 0	1¼
6000	Slate Mountain Merio. [L. £5]	2 0 0	—

*** Those mines with [S. E.] appended have been admitted on the Stock Exchange. Those mines with [L.] appended have been incorporated with Limited Liability.

*** Our object being to make the Share List correct, we earnestly call upon all who have the power, to aid us, by forwarding any alteration or correction which may, from time to time, come under their notice. To shareholders, as well as those officially connected with the mines, we appeal for information. Reports from mines—in fact, mining intelligence of every description, forwarded to our office, will meet ready attention.

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